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THE AMERICAN FARMER,

SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . *Virg.*

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THE AMERICAN FARMER

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ADDRESS—PROSPECTS.

In presenting to the Agricultural community this, the first number of the new series of the AMERICAN FARMER, in its *monthly form*, it may not be inopportune to bespeak for it the favorable interest and exertions of all friends of husbandry, whether they belong to the planting or to the farming classes. In conducting our periodical it shall be our unceasing desire to watch over with paternal care, guard with devotional zeal, and develope with all our abilities, whatsoever may be calculated to promote the welfare, elevate the character, or further the interests of the tillers of the soil.

As it was the good fortune of this journal to be the *pioneer* in the great work of agricultural *improvement* in America—as to it the honor is due, under the auspices of its enlightened and single-hearted founder, of having set that glorious ball in motion—so shall it be the pride and pleasure, as it will be the duty, of its present conductors, to endeavor to maintain that high and elevated tone with which it commenced its career, and which with feelings of exultation, but without arrogance, we think we may affirm, it has ever been preserved. Among the objects which we intend to embrace within the range of our peculiar attention, shall be those which relate to the business and pursuits of the *farmer*, the *planter*, the *horticulturist*, the *florist*, the *nursery-man*, the *vine-dresser*, and the *orchardist*, the *grazier*, the *dairyman*, the *shepherd*, and the *breeder of stock*. In a word, whatever may relate to the occupations and interests of the cultivators of the earth shall command our unceasing regard. In the furtherance of these objects, all our industry, all the energies of our mind and body shall be unceasingly directed, and in order that they may be so directed as to prove of value, we shall avail ourselves of every light to be found both at *home* and *abroad*,—and with the view of making our journal present the *impress of the agricultural* mind, throughout our wide-spread land, we invite the friends of agricultural improvement in every section of it, to make our pages the medium of communicating their thoughts to the public. There are but few planters and farmers who have not some plans of operation peculiar to themselves, which, if generally known, would not conduce to the *general* good, tend to increase the stock of agricultural knowledge, and unfold the resources of our common country. Of the truth of this position there can be no question—why then, we will ask, should any reluctance be felt at giving those views—the results of arduous study, long tried experience, and practice—to the public? Surely it is not sufficient to say that culturists are not skilful writers; for there are but few who are not competent to express themselves so as to be clearly understood—and for ourself, we can say, in all candor, that we have never conversed with a practical farmer, however humble his mind in the scale of intellectual culture might be, that we did not leave him with the grateful reflection that we had thereby added to our limited stock of information. But if there were fewer thus capable of communicating their thoughts, identity of feeling, a kindred patriotism, and a community of interest, should make them rise superior to all considerations which spring from a too morbid sense of delicacy. Fortunately for the common weal, however, taken as a class, the American husbandmen are as enlightened as any other body of men to be found within the range of civilization, and from the very *nature of their vocation*, it is fair to assume, that there are none more imbued with those principles which impart dignity to the human character, lend a charm to the social relations, make men disinterested citizens, good neighbors, and faithful friends, and clothe them with those attributes of high and exalted virtues, which, while they refine the morals, spiritualize the feelings, and purify the heart. Such being the natural results of his calling, why should not the agri-

culturist take upon himself the duty of enlarging the sphere of his usefulness, by submitting to the public eye a view of those fruits which he may have reared by his studies in the closet, and by his observation and practice in the field? The relations which he bears to society as a friend of his kind, on the one hand, and by the claim of patriotism and the laudable pride of pursuit, on the other, appeal to him to do so—hence then, in offering our pages as the receptacles of the thoughts, views, experience and practice, of the agricultural classes—being influenced by a desire to subserve their interests—we may be permitted to hope, that *indifference* on their part, will not subject us to disappointment.

In our *prospectus*, we announced that we should so fashion our journal, as to make it chiefly look to the interests of the Middle, Southern, South-western and Western States, and while we repeat that, as its main object, we may be permitted to observe, that its pages will reflect light which will equally suit every section of our far reaching union. *Marylanders* by birth, education, feeling and interests, we are aware that, come what may, our fortunes must be mingled with those of the people of the regions of States whose location we have described,—and to whose fortunes, in weal or woe, we will cling with all the philosophy that may become men and patriots —but it is due alike to the character of our periodical for general usefulness, and to that catholic sympathy which abides in our hearts, to say, that, in conducting it, we shall imitate the king of day, and endeavour to make it shed its rays of light upon *all*, sedulously guarding its columns against whatever may savor of narrow sectional prejudices, or engender hatred among men whose common birthright have made them brethren, and whose identity of brotherhood should bind up their hearts with chords of affection and love.

As *manure* is the farmer's gold mine, we shall take especial pains to lay before our readers every well attested fact of importance to be known, whether it relates to mineral, animal, vegetable, or compost manures, and, whenever practicable, to disclose to them the nature, effect, and mode of composting the substances used. This we shall do without indulging in the pedantry of the school, in order that he who runs may read, and reading, understand; for we do hold it to be a most reprehensible species of affectation, in speaking of the every day business and common operations of the farm and plantation, to bury up the *meaning*, and destroy the utility of processes, by the use of incomprehensible and jargon-like terms in their description. *Technical phrases*, of learned length, may address themselves favorably to the erudite scholar and student—these may appreciate them, as the signs that the author is imbued with the lore of ages past and present—but to the culturist, who has neither time nor inclination to burn the midnight oil, it avails nothing towards his improvement, when the teacher addresses him in a language which he not only cannot comprehend, but which it is painful for him to read or hear, because he cannot understand its import.

Of the *diseases of Stock*, of all kinds, and of the *remedies, preventive*, as well as *curative*, we shall freely treat: so also will we of the principles and best methods of *rearing* and *feeding* them. To the subject of *feeding young animals*, we have devoted much time in reading and reflection, and formed opinions which we believe to be formed upon the just principles of animal economy. To illustrate what our opinions are, and render them both acceptable and serviceable to those interested therein, shall be our business in future numbers of our journal.

We shall impress upon our readers the justness of the policy of diversifying the products of the field, in order that that *bane* to healthfulness in prices—excess in the production of any particular article—may be avoided. Nor shall we fail in efforts to demonstrate to the farmer and planter, that their true interests lie, in pursuing that system of economy, which recognizes as a truth, that their prosperity demands they should, on their own estates, produce all the necessaries and comforts of life, which are susceptible of being thereon raised and fabricated.

While we shall be regardful of the *economy* of the *gentlemen*, we shall not be unmindful of that which belongs to the *ladies*. In their department we shall ever have something for their instruction and pleasure, because we know that whatever demand connected with the household which may be made upon *woman*, will be attended to in the letter, in the spirit, and in that faithfulness, which alone vegetates and is nurtured in woman's heart.

Of our *prospects* we will remark, that our *enterprise* has been received in every direction with a cordial welcome, which is as promising of the most brilliant success, as it has proved grateful to our feelings and pride. Numerous have been the affirmative responses to our call for aid in the procurement of subscribers, and from the additions which are daily flooding in to our list, we anticipate that the *American Farmer*, as it is the *oldest*, so will it be one of the *best* sustained agricultural periodicals in the country. At all events, if it be not, it shall not be for the want of that industry and holy zeal in the cause of agriculture, which with us is a passion—a passion which enables us to overcome all obstacles—which sweetens the toils of labor, and imparts to age the elasticity and freshness of youth.

Bees —Dr. Waterman gives, in the Cleveland Herald, his mode of catching the bee-miller or moth. He says, "I took two white dishes, (I think white attracts their attention in the night,) or deep plates, and placed them on the top of the hives, and filled them about full of sweetened vinegar. The next morning I had about fifty millers caught; the second night I caught fifty more; the third night being cold, I did not get any; the fourth night being very warm, I caught about four hundred."

ROYAL AGRICULTURAL SOCIETY.

At a meeting of this Society, held at the Society's House, in Hanover square, on the 16th April, P. PUSEY, Esq. M. P. in the chair, the following interesting Report was made which we copy from the London *Gardener's Chronicle and Agricultural Gazette*, of April 19th, received at the office of the "*American Farmer.*"

BONE MANURE.

Mr. PUSEY informed the Council, that the Prize Essay of Mr. Hannam, on the application of bones as a manure for the Turnip crop, contained, in his opinion, not only a detailed account of the best experiment ever made in Agriculture, but some points of so much importance at the present season, when the time for sowing Turnips was coming on, that he felt anxious that not a moment should be lost in communicating the facts to the members, for their information and guidance. Mr. PUSEY having adverted to the great discovery of the economical and efficient employment of bones as a manure when dissolved by maceration in sulphuric acid, proceeded to read extracts from Mr. Hannam's Prize Essay, of which the following is the substance:—

I. SUPERIORITY IN ECONOMY AND EFFECTS.—This result consisted not only in a greater amount of crop obtained at less cost than in the case of bones employed in their ordinary state, but also in the condition and character of the plant itself, as well as in its growth; the crops derived from dissolved bones being both more abundant, healthy, and less liable to attacks of insects, and the plant more rapid in its growth (by 10 days in the first month, and the gain of a month at the end, the Turnips from the dissolved bones being ready for use several weeks before any other,) while it exhibited a decided tendency to form bulbs at a much earlier period. The greater and more readily fertilizing effects of bones dissolved in acid than any sort of bones not so prepared, were clearly shewn in the following results; in which the crops from the dissolved bones took the lead from the commencement:—

Bus. of Bones pr acre	Cost of Bones per acre.	State of Bones.	Amount of Produce per acre.
	£. s. d.		tons. cwt. st. lb.
16	2 0 0	Crushed	10 3 4 8
2	... ...	Dissolved	9 12 0 0
2	... '...	Dissolved	11 15 0 0
4	... ...	Dissolved	12 11 6 4
4	0 19 6	Dissolved	14 6 4 0
4	1 0 6	Dissolved	14 11 7 0
8	1 9 9	Dissolved	13 15 7 0
8	1 13 0	Dissolved	15 2 5 0
8		Dissolved	16 1 3 6

From which it appeared, that 2 bushels of dissolved bones per acre would actually produce as good results as 16 bushels of bones in their ordinary state in some cases; that 8 bushels of dissolved bones would greatly surpass 16 bushels of bones used in any other manner; and that 4 bushels per acre would be a fair quantity to apply in the state of solution: the results being greatly superior to those from four-fold the same quantity of bones applied in the usual manner, and the cost of the application less in proportion to the amount of effect produced, evidenced, by the weight of the crop, than that of any other quantity.

II. PROPORTIONS.—1. *Bones and Acid.*—The proportion of acid had generally been one-half of the weight of bone employed; but one-third, or even one fourth of the weight of bone might be used with success, if occasion required. That was an important point in the economy of the manure, as it affected the cost materially. 2. *Water.*—The proportion of water had generally been 100 times the weight of acid; but 50 or 25 times the weight of acid would serve the purpose required very efficiently. The fact was one likely to be of great use, one of the main practical difficulties to contend with in the application of dissolved bones being the large quantity of water which had been considered necessary. Mr. Hannam's results showed that four bushels of bones (12st.), 6 st. of acid, and 300 st. of water (50 times that of acid) gave 420 gallons of dissolved bones to be applied per acre; while 150 st. of water (25 times that of acid) would suffice. It was, however, worthy of notice, in reference to the preparation of the mixture, that the bones should be pulverized as much as possible before they are mixed with the acid, in order to render the solution more complete; but should that not be the case, and a few of the larger portions of bone be left undissolved, that circumstances would occasion no injurious effect, as there would be bone enough dissolved for the plant in its early stages, and the larger particles would disintegrate by degrees and come into operation towards the end of the season.

III. DISSOLVED-BONE COMPOST.—Mr. PUSEY thought that however great a point was gained by reducing the bulk of the water employed for diluting the solution of the bones, a still greater step was attained by substituting altogether the compost for the liquid form of the application. In the Society's last Journal, p. 596, Mr Tennant, of Shields, near Are, gave the following account of his practice on this head:—"I put 25 bushels into three old boilers (of which every farm here has a supply) and next poured in two bottles of acid, of about 170 lbs. each, and 36 Scotch pints (18 imperial gallons) of boiling water into each boiler. It boils away at a great rate for some time, and in a day or two we empty the boilers into two carts of light mould, and turn the mixture over. At this stage, the bones are only partially dissolved, but they heat and decompose in the heap, after being turned over three or four times; and in the course of seven or eight weeks the compost becomes dry, and breaks down with a shovel in a fit state for spreading with the hand in the drill."—Mr. Thompson stated that he had himself last year found 4 bushels of dissolved bones applied in the form of compost fully equal to 20 loads of farm-yard manure, there being no perceptible difference in the crop throughout the field.

IV. COST OF ACID.—The EARL OF DUCIE called the attention of the Council to the price of the acid employed for the solution of the bones. He understood that sulphuric and muriatic acid might be obtained for three farthings per lb. It was desirable, not only that the price of the acid should be ascertained, but that its purity and strength should also be uniform.

SUPPLY OF GUANO—Mr. E. Bartlett, of N. York, agent for the Peruvian Guano Company, publishes a statement in the American Agriculturist, by which it appears, from an official report of a survey made to the Peruvian government in 1842, that there is an ample supply on the coast of Peru alone, to furnish 50,000 tons per annum for 900 years! which valued at $50 per ton, amounts to $2,331,609,000, a sum such as no mine has as yet produced."

HON. JOHN C. CALHOUN'S FARM.

The following Report by the visiting committee, of the Agricultural Society of Pendleton district, S. C. will be read with interest. It is gratifying to find that the distinguished Statesmen of our country are setting such laudable examples in the improvement of their estates, and that notwithstanding the time which is devoted to the public service, they still keep before their mind's eye, the example of the Father of his country, who amidst the alarms of war, and the arduous duties of the council in getting the ship of State fairly under way, never lost sight of his agricultural duties. That the distinguished occupant of "*Fort Hill*" may long live to enjoy the fruits of his forecast on his splendid estate, is our sincere prayer:—

The Committee proceeded to examine the farm of the hon. John C. Calhoun, and although it may be truly said that nature has done much for it, yet to its proprietor clearly belongs the merit of very superior management.

Acting upon the theory, that lands possessing the greatest natural fertility, must ultimately become exhausted by a too rapid succession of tillage crops, without some adequate return, and from the destructive effects of washing rains, Mr. Calhoun seems to have found a resource for the former in the cultivation of the pea crop, and for the latter, in the application of guard drains to his upland fields, evidently equal to the necessities of his position in both respects.

The Committee are of opinion, that the evil of greatest magnitude, and the one which more than all others combined, tends to frustrate our agricultural operations, and impoverish our fields, is that which we suffer from heavy falls of rain, and the consequent washing of our lands. It is true, that tillage done its part, especially when unconnected with a rotation of crops, tending to give rest, and impart refreshment to the soil. But compared with the other mischief, it is but as the drop in the bucket. To this, as a principal cause, is to be ascribed the almost incalculable amount of worn out and waste lands, and yawning gullies, which disfigure and disgrace almost every farm that meets the eye throughout the country. It is this ruinous tendency, unchecked by a single contrivance, but as tamely submitted to as if it were one of the irresistible decrees of destiny, which has led to the suicidal policy of abandoning fields as soon as their original fertility become exhausted, and felling the forest in search of the means of further subsistence; and finally it is this which has caused so many thousands of our countrymen to exchange "their own their native land," with all its tender endearments, for the toils, privations and dangers of our western frontier.

Deeply impressed with the importance of this subject, the Committee were both gratified and instructed by the extraordinary management of Mr. Calhoun, by which, through the instrumentality of guard drains on all his upland fields, placed at such distances apart, and graded in such strict conformity to hydrostatic principles, that his upland fields, even those of the greatest declivity, have sustained almost as little injury from the heaviest falls of rain, as the rich low lands at their base.

The Committee are aware that such a statement is likely to be regarded as the offspring of that enthusiasm in reference to agricultural enterprises and improvements, which well directed experiments too often prove to be fallacious. But regarding the farm of Mr. Calhoun as the first, if not the only one, in this section of country, upon which this policy has been fully illustrated, and as furnishing proof approaching to mathematical certainty, of the facts stated by the Committee, they have deemed it a duty incumbent on them, to bring to the notice of our planters, not only the principles upon which this measure has been conducted, but also the results which have followed.

Their attention was first directed to Fort Hill, a field of about forty acres, terminating at its base on the one side, in the low grounds and connected with the uplands on the opposite side, by a depression considerably lower than its summit. This field, by reason of its descending in every direction, necessarily required to be literally belted with guard drains. Certain points appeared to have been selected, at which the water could be discharged with the greatest safety, and a series of drains were directed round the hill, with a descent just sufficient to convey away the water, and yet so gently as not to enlarge or deepen their channels. The number of these drains was made to correspond with the necessities of the field, as determined by the amount of its declivity, being more numerous and nearer each other where the descent was greatest.

The committee were not informed as to the amount of this descent, or deviation from the horizontal line. But judging from the eye, they were supposed to equal from three to five feet in the hundred yards.

As a further measure of precaution, the intermediate drill rows were run out horizontally, or nearly so; an arrangement which, by the aid of the first great measure of safety to the soil, seemed to have enabled each furrow to retain its own water, or to have parted with it so gradually as not to leave a trace of the slightest injury.

The committee did not learn how long the celebrated hill had been in cultivation, though appearances justify the conclusion that it must have been cleared thirty or forty years; yet, notwithstanding the soil was evidently good originally, judging from the very heavy crop of corn and pea vine now upon the land, the Committee are induced to believe its productive powers have scarcely diminished.

In other hands, or even in the hands of the proprietor himself, had the above precautionary measures been omitted, the field must ere now have exhibited in many places a series of gullies and abraded surfaces, and been destined soon to take rank with the waste and worn out lands of our country.

The remaining portion of the uplands on this farm, with the exception of various patches in the vicinity of the homestead, were appropriated to cotton. And although the greater part of them was fresh land, that had been but a few years in cultivation, yet, fully impressed with the importance of upland drains and acting upon the policy that it were easier to prevent than to remedy an evil, a sufficient number of them to protect the lands have been already made, with the same caution, and with the same success, attendant upon those on Fort Hill.

The amount of land required for these drains is very inconsiderable, and the amount of soil conveyed away through them, though comparatively small, may often be diverted, as we saw it done in several instances on Mr. Calhoun's farm, to some impoverished spot which would be improved, or to some wet depression which they would elevate and reclaim.

The low grounds on this farm were exclusively ap-

propriated to the corn crop, intermixed with peas throughout. The corn crop very fine, and the entire surface of the earth was covered with the most luxuriant crop of pea-vine we ever witnessed.

By reason of Mr. Calhoun's absence, the Committee are uninformed as to his management of the pea-crop, nor do they know any thing concerning his rotation of crops. But all concur in the opinion that a return annually to the soil, of the vast amount of pea-vine, on each acre of land, would amount to an adequate compensation for all that is taken from it by the corn crop.

The stock on this farm, consisting of horses, hogs and cattle, were of good blood and in fine condition. The farm houses were sufficiently numerous, and both comfortable and convenient. And this was more especially the case with the negro houses, which consisted of a building of stone of superior masonry, two hundred and ten feet in length, divided into apartments, with seperate fire-places, sufficiently large for all the purposes of comfort and healthful ventilation.

The Committee, in conclusion, have no hesitation in pronouncing the management upon this farm highly superior.—The useful and ornamental have been most happily blended, not only throughout the principal tillage crops of the farm, but also the more refined horticultural operations of the homestead.

GUANO.

In the 3d part, vol. 1, of Professor *Colman's European Agriculture and Rural Economy*, just published, there is a very elaborate article upon the virtues of *Guano* as a fertilizer, containing facts ascertained, in the main, from personal observation. And as the entire article is too long for our pages, we design to give its substance in as brief a space as we can to do justice to the subject. The professor says:

"A strong and impatient desire has been expressed that he should give what information he possesses on the subject of the recently introduced and more extraordinary manure called *guano*, and he therefore, speaks of it in this part of his work."

After explaining the nature of the origin of the deposite, which he ascribes to the penguin, he observes:

"The secret of the extraordinary success of this manure is not yet solved, however nearly a solution may have been approximated. This is evident from the fact that, after the most exact and minute analysis of this manure, conducted with all the skill and science which can be brought to bear upon it, no one has been able to form an artificial guano with any degree of its efficacy; Chemistry determines with wonderful accuracy its *inorganic* properties; but fifty per cent. of its *organic* matter, and this being dissipated or lost in the process of analyses, nothing is known of it but its absolute quantity. Every common farmer knows that horse manure, cow manure, hog manure, sheep manure, are all specifically different; and I believe this depends not more upon a difference in their inorganic elements, than upon some specific effects of their organic elements, and though horses, and cows, and sheep, should be fed upon precisely the same food, their excrementitious matter would be specifically different, and the effects upon vegetation different. I pretend not to say in what this difference consists; this chemistry has not yet reached, though I can but hope the goal will presently be attained. I am not therefore entirely satisfied with any account which Chemistry has given of *guano*, so far as its operation is concerned. It has done much, and is clearly able to determine the different specific values of different samples. This is of great importance to the farmer, and not less so to the honest dealer. But the specific quantities of this *extraordinary* manure, as proved by its effects, are, I presume to believe with all possible respect for science, yet to be discovered.

"One, indeed, may well speak of its effects as extraordinary, from what I have seen. In Scotland, last autumn, two shrubs were shown to me, sweet briars, growing in front of a two-story house, and trained upon its sides; one at one, the other at the other end. The soil in which they grew, the aspect, and other circumstances, were the same. One in the season had grown 6 or 7 feet; the other nearly 30 feet. This had been repeatedly watered with *liquid guano*, by the hands of its fair cultivator. I have *seen* the extraordinary effects of the application of Guano all over the country, and I have met with very few instances of disappointment.

"It has been used for *turnips, barley, wheat, oats, grass, garden vegetables, onions, asparagus, potatoes, flowers* and *trees*. I have seen its application in all these cases, excepting asparagus and trees; but the testimony which certifies its success in these cases is unquestionable.

"In regard to the mode of application it is well settled that it should seldom be applied alone. To garden vegetables, or greenhouse plants, it may be applied by being mixed with four or six times its quantity of dry earth or mould. In this way it may be sown broadcast over the field, and then lightly harrowed or turned in; or it may be sown first where the seed is to be dropped; great care must be taken, however, that it does not come in contact with the seed, or it will destroy its vegetative powers. It is desirable that it should be covered as soon as may be after being sown. It should never be mixed with lime, bones or wood ashes, as these substances coming in contact with it, will drive off its ammonia.

"Where a portion of barn manure had been applied in conjunction with guano, the mixture was found much more efficacious than the manure when applied alone. In an application which I saw, guano gave 7 tons of turnips *increase* to an acre over an artificial manure which had been much praised, and was applied at the same time.

"In an experiment by John Dudgeon, Esq., of Spylaw, and reported to the Highland Agricultural Society, *guano* was used against *bone-dust*—two hundred weight of guano, and 16 bushels of bone-dust, were applied to the acre—the result was, that the guanoed turnips gave 31 cwt. and 4 stone, whereas those manured with bone-dust only gave 24 cwt. 7 stone, on the same given quantity of land. The drills manured with guano were ready for the hoe eight days earlier than the other.

"Guano has been applied to winter wheat, both in drills and broadcast, and with singular success. It has been applied, likewise, with great success, to grass and pasture land.

"On an 8 acre field, sown with 300 weight of guano, and three bushels of Italian rye-grass per acre, the produce weighed when dry and ready for the stack 4 tons per acre. Much of this crop was 5 feet long. So rapid was the growth, that 50 hours after cutting it had grown to the height of 3 1-8th inches."

These results as to the efficiency of guano as a fertilizer are entitled to the highest consideration.

WHEAT.

The following excellent article we copy from the *Ohio Cultivator*.

CROPS REQUIRE TO BE FED AS WELL AS ANIMALS.

In the first settlement of this country, the domestic animals found food growing spontaneously in the prairies and forests, and they lived almost entirely without the aid of their owners. As the country became more populous, and the animals had greatly increased, this spontaneous food became exhausted, and they had to be fed by the hand of man.

When the soil was first reclaimed from the forest, the crops obtained their food, for a number of years, from the abundance of vegetable matter which had been accumulating in the soil, as well as from the inorganic substances, which had been brought there by natural causes. But in a few years, by a constant drain upon the soil, without making any recompense, this spontaneous food, which nature has provided, has become principally exhausted; and it is now as much the interest of the farmer to feed his crops, as it is to feed his animals.

"I do feed my crops," says the practical farmer, "I haul out stable manure and straw, and I sometimes plough in clover, and put my land in first-rate order before I sow my crops."

"Very well," says science, "this is all right, so far as it goes, and I grant one in a hundred may do this; but I should like to be able to make this statement in 'inverse proportion,' that there shall be one in a hundred who does *not* do it."

"But, Mr. Practical Farmer, there is another matter connected with feeding your crops, that I wish to press upon your attention, which is this: it is as important to feed your crops, with the kind of food most suitable to their digestive organs, as it is that of animals. Did you ever think of this? We do not feed hogs on hay; neither do we give pork to horses; but we are, nevertheless, careful to give them enough to keep them alive, and to cause the animals to thrive and increase, and at the same time we avoid giving them so much as to surfeit or founder them."

"After all the pains I take," says the Practical Farmer, "I cannot raise good wheat; when I sow it on my land without manure, it is struck with rust; the berry shrivels, and I do not get half a crop. And then I go to carting on manure, and my wheat goes to straw, falls down flat on the ground, and has not grain worth the labor of saving; and so I turn my hogs into the field, to get what few grains they may find. It is useless for me to try to raise wheat on my farm; it is either too rich or too poor. If I put on manure, the straw grows too rank, and is too weak to stand up; if I sow without manure, the heat and moisture strikes it with rust. I must go to raising some other crop."

"Stop, neighbor," says Science, "here I have a book that will tell you something about raising wheat. I think it probable that you have been giving pork to your horses."

Prac. Farmer. Oh! go away with your book. Do you think I want any of your book farming about me? I have been a practical farmer all my life, and in early times I used to raise the best wheat in the country, without manure or books either. Do you think that I don't know how to raise wheat?

Science. Will you read it?

Prac. Far. No. It is so seldom I read that it is quite a task for me to read a book.

Science. Well, will you listen while I read?

Prac. Far. I have not time to stay long, but I have no objection to hearing you read a little; it won't *cost anything*, will it?

Science. If you will listen attentively, I will read you a few lines with pleasure. From each acre yielding twenty-five bushels of wheat, there is extracted from the soil, in the grain, 3.3 pounds of potash, and in straw, 0.6 of a pound.*

Prac. Far. What! does wheat contain potash?

Science. Yes. And the twenty-five bushels of wheat will also take from the soil, in the grain, 3.5 pounds soda, and the straw, 0.9 of a pound.

Prac. Far. Ah! does wheat contain soda too?

Science. Such an acre of wheat will also take from the soil in the grain, 1.5 pounds of lime, and in the straw, 7.2 pounds.

Prac. Far. Oh yes! I have heard of people putting lime on their land, but I never thought enough of it to try it myself.

Science. The twenty-five bushels of wheat also take from the soil, in the grain, 1.5 pounds of magnesia, and in the straw, one pound.

Prac. Far. Why, I have heard it said that magnesia is injurious to crops, and that when farmers apply lime to their land, they should be careful to use that which does not contain magnesia. But go on; is there anything else in wheat? I can't stay much longer.

Science. In an acre of wheat, yielding twenty-five bushels, there is in the grain six pounds of silica, and in the straw eighty-six pounds.

Prac. Far. Now I am stumped? What on earth is silica?

Science. The book says it is the substance of flint or pure sand.

Prac. Far. What! the substance of flint or sand in wheat? Pray, Mr. Science how does it get there?

Science. You know that sand can be melted, as is done in the manufacture of glass, by the application of heat with soda and other chemical substances; and this book tells us that it becomes soluble in water, by the aid of the potash and soda before mentioned; and when thus dissolved, it is taken up by the roots of the plants. But I have not yet got through with the component elements of wheat:

One acre of wheat yielding twenty-five bushels, also contains, in the grain, three quarters of a pound of sulphuric acid, and in the the straw, one pound.

Prac. Far. Why, that is the oil of vitriol, isn't it?

Science. There is also taken from the soil, by twenty-five bushels of wheat, in the grain, 0.6 of a pound of phosphoric acid, and in the straw, five pounds; also in the grain, 0.15 of a pound of chlorine, and in the straw 0.9 of a pound. This is all, and you must remember these are inorganic substances, such as do not grow like vegetables, and therefore they must be extracted from the soil. The total amount of these organic substances taken from one acre of the ground, yielding twenty-five bushels of wheat, and including the straw, as it is usually cut by the cradle, is one hundred and twenty pounds. Three fourths of this is silica, which is rendered soluble by the alkalies, potash, soda, and lime, thus showing the great importance of these substances in soils producing wheat.

Prac. Far. Well, I declare I did not know that

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* NOTE. The weights here given are in pounds and decimal fractions, thus: 3.3 is three pounds and three-tenths of a pound. It may also be remarked, that the language here used is not taken from the book alluded to by the writer; only the substance is obtained therefrom.

wheat had so many things in it. I always *thought* that wheat grew out of the ground, and got its food from the vegetable manure that was contained in it, or was put there by the farmer.

Science. Well, friend, you knew before, by sad experience, that vegetable manure alone would not raise wheat; for you say that when you put manure on your land, your wheat all went to straw, which was so weak that it fell down flat on the ground, and had no berry in the heads; and when you sowed your seed without manure, it was struck with the rust, and the grain shrivelled, so that you got not more than half a crop. Now you see that this book has told you some things that you did not know before, and which perhaps you never would have found out by your own efforts, without calling in the aid of science.

Prac. Far. Well, if the wheat crop contains all these substances, and they are all extracted from the soil, how are we practical farmers to know when they are not all present in the soil? and above all, how are we to obtain all this potash, and soda, and lime, and flint, and sulphuric acid?

Science. The failure of your wheat crop for a series of years is pretty good evidence that some of these substances are wanting in the soil, but it will not decide which. The only way to determine which one of the foregoing substances may be wanting, is to call in the aid of science, and have a correct analysis of the soil made. But, nevertheless, by the nature of the disease that affects the crops, we may be able to judge more correctly of the substance that may be wanting. When the straw is weak, and not able to stand erect, it may be certain that the alkalies are wanting to produce their silicates which are deposited in the stem, to give it strength and firmness. This book, however, will tell what substances you must procure and apply to the land, which will supply the ingredients contained in the wheat plant.

Prac. Far. I should like to hear something more about these matters.

Science. This book gives an account of the component ingredients of wood ashes. It says that "ashes always consist of a mixture in variable proportions of carbonates, silicates, sulphates, and phosphates of potash, soda, lime, and magnesia, with certain other substances present in smaller quantity, yet more or less necessary, it may be presumed to vegetable growth." "But they contain a greater or less quantity of imperfectly burned carbonaceous matter," or charcoal. Here you will perceive that you have nearly all the substances, at once, of which the wheat plant consists. It would seem, then, that if ashes be mixed with the soil it will supply the greater part of the substance of wheat. Did you ever think of this before?

Prac. Far. I have heard it casually remarked that ashes were useful, sown upon the wheat; but I never gave the subject much reflection, and therefore it did not strike me very forcibly. But does your book tell anything about the action of lime? I feel somewhat anxious to know this, for I have limestone on my farm, and I have a mind to try it.

Science. Yes, this book gives an interesting account of the beneficial action of lime upon soils, and sums up its conclusions as follows:

"Lime improves the quality of almost every cultivated crop.

"It supplies a kind of inorganic food, which appears to be necessary to the healthy growth of all cultivated plants.

"It neutralizes acid substances, which are naturally found in the soil, and decomposes, or renders harmless, other noxious compounds, which are not unfrequently within the reach of plants.

"It changes the inert vegetable matter in the soil, so as gradually to render it useful to vegetation."

Prac. Far. It appears, then, that lime is useful to vegetation in other respects than in furnishing this ingredient to the plants.

Science. There are a variety of other substances described in this book, which are usefully applied to vegetation; both in ameliorating the soil and in furnishing specific substances to the growing crops. But it will detain you too long, I am afraid, to read all of these to you now.

Prac. Far. That must be a good book for farmers, I should think. What is the price of it? Where did you get it? I will certainly have to get me one.

Science. It may be had at most of the bookstores in the State, for a few shillings; and the title of it is Lectures on Agricultural Chemistry and Geology, by Jas. F. W. Johnston. D. L.

Dig Deep and you'll find Treasure.—We commend the following anecdote to the particular consideration of those who are yet addicted to the practice of shallow plowing, and who think that no good comes from deep stirring of the soil. By adopting the practice of deep plowing, a new source of wealth would be opened on many farms, which the "*skinning*" culture of a century or two had never developed. But to the anecdote—which, though old, is just as good as if it were "bran new:"—

"An old farmer, on his death-bed, told his sons, who were not very industrious lads, that he had deeply buried his money in a particular field, which was the most barren land on his farm. In consequence of this information, soon after the old man's death, the sons began to dig (and they dug deeply too) all over the field—and this they did again and again, for it was long before they quite despaired of finding the money. At length, however, they gave up the search, and the land was planted with corn; when, from the deep digging, pulverization and clearing which it had received in the search for the money, it produced a crop which was indeed a treasure."

An enterprise is on foot for establishing a colony of German emigrants in Morgan County, Tennessee. —About two hundred thousand acres of land have been purchased, and two or three hundred emigrants are daily expected to arrive. Others will follow from time to time as fast as preparations can be made for their reception. Manufactures and agriculture will engage the attention of the colony. For the former there is water power in the greatest abundance. The agricultural operations will have reference chiefly to the cultivation of the vine and fruit trees generally. Special attention will be given to the raising of sheep and the growth of wool. In view of the last mentioned object, the company have already sent over a few of the finest Electoral Saxony rams, whose original cost was over $500 a piece.

Another company, with similar objects in view, have purchased about sixty thousand acres in Perry County, Tennessee.

A Cow with Three Calves.—We saw yesterday, on the farm of N. B. Moore, near Augusta (Ga.) the novel spectacle of a cow with three calves. The calves are about three days old, and though small evinced remarkable sprightliness. We have often heard of cows dropping two calves, but this is the first instance of three that we have ever known.—*Augusta Chronicle.*

RECLAIMING SWAMPS.

Being aware that there are thousands and tens of thousands of acres of swamp lands, which yield nothing to their owners, and which, by means of the poisonous *effluvia*, which they generate annually, sow the seeds of autumnal diseases, we think we cannot do our patrons a more acceptable service, than by laying the following able paper before them. For ourself we can, in all candor, say, that we have not read one for years which has given us more pleasure. It is marked by all that perspicuity of thought, and clearness of description, which belongs to a sensible practical farmer, and impresses the reader irresistibly with the belief that the writer is describing that which he understands.

The reader will perceive, that Mr. *Spencer* made his blind-ditches with stones which he got out of his marshes; but let no one despair who may not have that material at command, as very durable ditches may be formed by placing poles six inches in diameter, on either side of the ditch, taking care to adjust the edges so as to meet and fit close, and by placing a third pole on top of the two first, so as to form a trough, as it were, for the passage of the water. Ditches thus formed should be aided by covering the poles, as in the case of stones, with long straw, rushes or other coarse grass to prevent the earth from falling into and stopping up the water passage.

To the President and Standing Committee of the Rhode Island Society for the Encouragement of Domestic Industry:

GENTLEMEN—In the remarks which follow, I have attempted to give the results of my experience in reclaiming peat swamps, in which I have been very successful.

Agriculture has been the principal business of my life. Being a practical farmer, I have made many experiments in the raising of vegetables and the use of manure; but I will now give my views upon the reclaiming of low land by the construction of blind ditches in which I have had many years experience.

On my farm there were several cold, wet swamps, the income of which would not pay the expenses of hauling the cattle out of the mire in the spring, when they are so anxious to get the green grass that grows in the mud holes. To prevent my cattle from getting mired, I caused ditches to be dug through the swamp and left open. This did not, however, prevent the cattle getting mired, nor improve the quality of the grass, except for a few feet from the ditches. I endeavored to keep the ditches open, but they only answered the purpose of carrying off the rain water, and left all the cold spring water, that I desired to get rid of. Where subterranean ditches have been properly made and covered, there has not been the least difficulty in ridding the swamps of spring water. Swamps thus drained, have never been affected by wet seasons; in fact, some of my swamps, which were once beds of mire in the spring of the year, may now be plowed and planted as early as any other land.

I commenced my experiments in 1830. I had a cold wet swamp, containing about one acre of land, lying before my house, which yielded a heavy burthen of coarse swamp grass, intermixed with rushes, skunk cabbage, and other noxious weeds. This crop was only fit for bedding for cattle. In the spring of the year, the swamp was a bed of mire: for many years I had one ditch through it, and frequently two or three, but they neither drained the swamp, nor improved the grass. Previous to underdraining, I had frequently carted sand and gravel on to the swamp, which was dish form, lowest in the centre, but with very little effect.

The swamp being near my house, was quite offensive, and believed to be unhealthy: it therefore became important that it should be reclaimed. By sounding, I found that the mud was deepest in the centre; I then caused a main ditch 2½ feet wide, to be dug through the centre of the swamp, and deep enough to take the upper water-courses. Small ditches were then dug from the spring holes to the main ditch. The ditches were then all filled with stones cast in promiscuously, but deep enough to be out of the reach of the plough. The stones were then levelled, and well covered with coarse hay, dry seaweed, &c., to prevent the earth finding its way among the stones thus deposited; the earth which had been taken out of the ditch was then cast back.

After this preparation, I proceeded with one-fourth of an acre as follows: I collected a quantity of small bushes and weeds, sea weeds and other rubbish, and commenced plowing the swamp with two yoke of oxen. Having plowed one furrow, I filled it with the brush, sea-weed, &c., and turned the next furrow upon it. I proceeded thus until the entire quarter of an acre had been plowed and treated like the first furrow.

This may be by some thought to be small work, but I have made it a rule and advised others when they were to try experiments, to try small ones. If they succeeded, they could increase: if they failed, they would lose little.

The ground thus plowed was then cut and levelled with the bog hoe and harrow, and twelve cartloads of compost manure spread on. It was then sowed down in September of that year, with six pounds of small clover, six quarts of herds-grass, and one bushel of bent seed. In the July following, 1831, I cut from this quarter of an acre, one ton of hay at a single cutting, which was sufficient, besides paying the cost of cutting and curing, to pay the entire expense of reclaiming and preparing the land on which it grew. It may be well to state that hay was that year worth $30 per ton.

The remainder of the swamp could not well be plowed and prepared at the same time. I however carted on sand and gravel to kill the foul grass that was not destroyed by the bog-hoe, the same fall and in June, 1831, I put on compost manure at the rate of 50 loads to the acre, and proceeded as before with bog-hoe and harrow. I sowed oats with grass seed. The oats grew very large, were mowed in their green state and taken off. The young grass grew so large the same year, that some of it was mowed. Since that time, it has been mowed every year, and the whole swamp has made an average yearly crop of three tons of hay per acre. For four years, nothing was done to the land. Since that time it has annually had a light dressing of manure. The clover run out after the first year, except over the ditches, where it still remains. The herdsgrass* and bent, or burden, were the principal grasses; the herdsgrass growing to a monstrous size, producing some heads measuring 13 inches in length. Every three years this acre of land pays the entire expense which has

*Timothy is here meant.

been laid out on it, besides the cost of culture, manure, &c.

In 1835, I partially reclaimed and cultivated a second swamp, to great advantage. In this swamp, the mud was found to be deepest under the banks, which is generally the case where the banks are high. Here the ditches are made on the margin of the swamp; but in all cases there must be fall enough to carry off the cold spring water. In digging ditches, they should be dug deep enough to take the first water-courses: these are generally found at the pan or subsoil. To be certain and to make the labor effectual, it is well to dig from 4 to 6 inches into the pan, to give the spring water a passage; it will then rise and run off among the stones in the ditches.

I commenced three years ago on a third swamp, where I wished to reclaim four acres. This, or a part of it, was peat; the ditches were therefore required to be cut six feet deep: on a small part of the swamp the ditches were two rods apart. It is probable that twice that distance would have answered, but having plenty of stone at hand, and wishing to make thorough work, they were placed nearer together. On this part, which was about three quarters of an acre, no animal could find a footing—hence all was done by manual labor, with spade, bog-hoe, &c. The stones were wheeled in on planks, and deposited and covered in the ditches, as in the former cases. In 1842, it was impossible for an ox to walk over this land, yet in the spring of 1843, it was plowed and planted. Manure was carted on without the least inconvenience. On the last of May, three acres were planted with potatoes, and a fine crop was obtained. Among these were planted for experiment, corn, pumpkins, cucumbers, squashes, turnips, &c., all of which grew vigorously and ripened.

On the 21st and 22d of June, 1844, two acres of this reclaimed land was sown with millet and grass seed—12 quarts of millet and one bushel of herdsgrass with other grass seed to the acre. On the 1st of September the crop was harvested. The millet had grown to an enormous size, the top heads as it stood, measuring six feet in height; it was judged by the reapers, and by those who saw the field, that from 8 to 10 tons of fodder would be produced on the two acres. Thirty bushels of seed were obtained from the top heads. The remainder of the reclaimed land was planted principally with potatoes, more than half of which were rotten, though not more so than those raised on other land on my farm, and by my neighbors.

The expense of reclaiming and manuring will not be far from one hundred dollars per acre.

I have long been of the opinion that swamps are our most valuable lands. The outlay necessary for reclaiming them, prevents their culture; but my experience has proved to my satisfaction that where there is fall enough to drain a swamp, they will produce more clear profit than any other lands I have ever cultivated, even allowing the expense of underdraining, manure and cultivation to be $100 per acre. Before underdraining, these lands are worth but a trifle. I have sold from one acre of reclaimed swamp, three tons of hay at $20 per ton, from a single mowing.

I would remark, that casting the stones into the ditches promiscuously, is much the best, for it permits the water to enter without any obstruction, and to find its way through them, and it will keep itself in good order; if I could have a stone box put in at the same expense, I should prefer to have the stones cast in promiscously. After one of these ditches had been made twelve years, I opened it for the purpose of changing its course. The stones were perfectly clean and not in the least obstructed by mud.

It should be recollected that these are blind ditches, and that they should be closed at the fountain or head, and no natural stream should be permitted to run into them.

The subscriber would invite the committee to view the bog meadows or swamps which he has reclaimed within the last fourteen years, and of which he has above given the processes pursued by him.

Respectfully, yours,
GIDEON SPENCER.

Norwick, Nov. 6, 1844.

[At a meeting of the Standing Committee of the Rhode Island Society for the Encouragement of Domestic Industry, held Jan. 25, 1845, a vote of thanks to Mr. Spencer, for the above communication, was passed.]

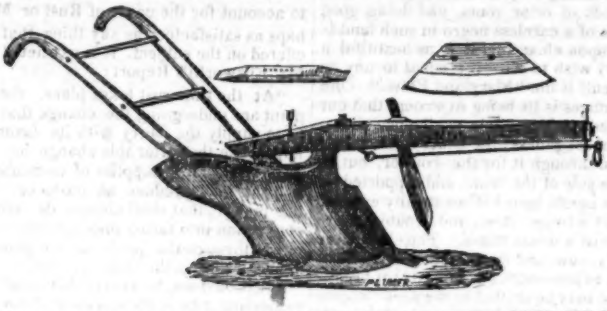
WHAT NEXT?—*Sugar recommended as the cheapest and best manure for turnips!* A writer in the English Mark Lane Express of the 5th of May says:

"Farmers are busy in preparing ground for potatoes and turnips, and the fallows generally are in a forward state. This is the period now, and from now till June, for the farmer to be on the alert: If he loses his turnip crop, it is more his fault in the majority of cases than any controlling cause. His motto should now be, to keep his soils moist by compression, and the seed is certain to germinate, and go on, too, if he will but supply the young plant with the necessary food. *Sugar* will, now the price is reduced, *I have no doubt be extensively used.* I speak from experience, when I say that, of all extraneous manures (if one it may be called,) it has produced more visible effects, in the least space of time, than any other I ever used, and is strictly what the turnip plant requires in the first stage of its growth. I would strongly recommend it to be tried on a small scale, mixed with ashes."

REVOLUTION IN AGRICULTURE ANTICIPATED—*Liebig and his reputed discovery*—The German papers give currency to the statement that M. Liebig, the celebrated Professor of Chemistry at the University of Giessen, has discovered a mineral substance which, when combined with guano, will produce one of the most fertilizing manures known. It is added, that a joint stock company, with a capital of £120,000 stg. composed for the most part of leading English capitalists, was immediately on the discovery being made formed for the purpose of carrying on upon a large scale the manufacture of the new compound. Among the subscribers are, however, several eminent professors of agriculture, who, according to the *Impartial du Rhin*, give out that the application of this substance to the culture of lands, will produce an entire revolution in the agricultural system.

THE HOVEN IN CATTLE—*Simple and effectual Remedy*—The Dublin Farmer's Gazette says—

Try the remedy of an egg shell full of tar, rather than attempt the barbarous practice of sticking. If two men hold the animal's head straight, a third its tongue to the right side, he can easily put down its throat an egg shell full of tar, and in ten minutes relief will usually take place, but a second dose has never failed with my cattle, which are always kept at a brisk walking pace through the yard until relieved.



THE DOLPHIN SELF-SHARPENING, OR "MARYLAND PLOW."

Among the numerous new Plows invented during the last few years, the *Dolphin self-sharpener or "Maryland Plow"* is among the most conspicuous.

The above cut shows the construction of this admirable Plow. It is made both with left and right hand mould boards, and combine a most perfect self-sharpening principle. The points are made of steel bars, which may be reversed at least a dozen times, thus being equal in durability to a dozen ordinary points. The shear may be made either of cast or wrought iron, which is also self sharpening. The coulter of this plow is novel—instead of a single it has a double edge. The clevis or draught tackle is perfect, quite unique, and prevents the possibility of breaking the beam by sudden jerks, may be shifted to or from the land, and set deeper or shallower with the utmost precision and dispatch.

Messrs. *R. Sinclair, jr. & Co.* of this city (veterans in the cause of agricultural improvement) are the inventors and manufacturers. For the performance of this plow, we subjoin the remarks of one of the most successful and intelligent Planters of Prince George's county, who has, at our solicitation, promised to become a frequent contributor to our pages.

Agricultural Implements—*Mr. Editor :* I have thought, that it possibly might be of advantage to some few of your readers, and it certainly would be gratifying to me if it proves so, that in the first number of your useful paper, in its new series, in a more readable form, if a few words were offered concerning Agricultural Implements, and the places where they can be easily obtained—I judge others by myself—young planters would often employ better tools if they only knew where they could be had—as one of the largest repositories in this country, perhaps in the world, is the extensive and admirably conducted agricultural warehouse of R. Sinclair, jr. & Co. on *Light street, Baltimore.* Now that I have mentioned it, allow me to say a word in admiration of it. Every Planter and Farmer of our State who visits your beautiful city, renowned more for the beauty of her daughters and the bravery of her sons, than for her lofty spires and monuments, should go to the establishment of Sinclair & Co. and see with their own eyes the countless contrivances and ingenious machines, that skill and industry have supplied to aid the farmer and make his "yoke easy and the burden of labour light ;" from the many enquiries I made, I learned that they employed constantly forty hands, besides a great deal of job work done elsewhere, and the steam engine of ten horse power, with a vast deal more of manual labor saving machinery constantly employed in supplying the wants of the husbandman. There are made at this house, annually, not less than 50 Corn Mills and Crushers, 250 Wheat Fans, 300 Grain Cradles, 150 Corn Shellers, 350 Cultivators, at least 50 Horse Powers, with as many Threshing Machines.

I mention these to give my readers some notion of the extent of their large concern; and were I to mention only half of the endless variety of *Tools* made there, it would be engrossing too much space and time ; but I will say that every implement from a foot pick to a threshing machine, from a turnip slicer to a beautiful grist mill, can be had at this establishment. They have the best facility of supplying plants, shrubs and trees from the celebrated Clairmont Nursery conducted by old Mr. Sinclair and Mr. Corse.

They keep on hand every sort and variety of garden and field seeds for sale, and have some fifty varieties of cabbage, and twenty-five sorts of radish seeds, notwithstanding my neighbor over the way, insists upon it that there never were but the white and red radish, and *three kinds of cabbage—his own,* neighbor Green's kind, and aunt Sally's reddish stem cabbage. Every variety of plow is to be found here —I understand they manufacture annually some 3000—of all their plows, and *superior,* all things considered, to all other plows, is their improved Dolphin self-sharpener ; in my humble opinion, it is a ne plus ultra—I have waited for nearly three months before I gave this opinion—in the meantime I have tried it in sandy, in clay, in hills, in bottom, in rooty, in stoney, in stumpy, half grubbed land, and I have found it always equal to my most sanguine expectation. My two horse one, will in clean sward, plow two and a half acres per day. It will turn the furrow as well as any plow I ever saw. It plows as deep as you could wish, but its ordinary depth is 7 or 8 inches, and width of cut 14. There is no plow known in this country to equal "Prouty & Mears' Centre-draught" for beauty of work and pulverising the soil, where it is in the hands of a careful white man, but then, it is adapted to clean, smooth fallow. I have seen them in *rough land* held on to by a negro with horses that pulled by fits and starts, and Prouty & Mears would have laughed at the work, and said to the master, "buy one of our plows," if they did not know that *their* plow had done it. But I have seen this plow of Sinclair & Co's. in the

roughest ground turning over tussocks, grub roots, matts of grass, beds of briar roots, and doing good work in the hands of a careless negro in such land as described; and upon clean turf it is as beautiful a working plow as I wish to see—it is equal to any in the world, and I call it the "Maryland Plow." One of its chief advantages is its being so strong, that our negroes cannot destroy it by their negligence, carelessness or natural roughness; the beam is not weakened by a mortice through it for the coulter, but is screwed on to the side of the beam, and supported by iron ledges—The mould board is beautifully curved, and the point is of wrought steel, and capable of being reversed at least a dozen times. The clevice, or draught tackle, is new and simple, and peculiarly well constructed to prevent the possibility of breaking the beam, and may be shifted in the field to give the plow greater or less depth, and more or less land; this admirable tackle alone, if attached to ordinary plows, would make them much more valuable—it is strong, durable, useful and cheap, and does beautiful work in the hands of any body or *any thing*. I with pleasure recommend it to my fellow planters as the best plow I know, all things considered.

A word or two about the propriety of every man having a good supply of farming implements, and I have done for the present. It is of course now-a-days, a conceded point, that there is labor and time saved in every farm operation, by having the right sort of labor saving machine wherewith to perform it, as for instance a sharp axe instead of a grubbing hoe to cut down a tree in a hurry. It then behooves every planter to have at any cost, a set of necessary farm implements, and the most expensive and best in the beginning are apt to prove the cheapest in the end. I hope it will not be looked upon as arrogance if I should suggest a few rules in regard to this matter—

RULES: Never borrow and seldom lend.

The more simple, the plainer and more substantial the implement is, which you buy, the better, in a country like ours where negro labour is employed; they cannot understand complicated machinery, and delicate fragile utensils are unsuited to their rough handling—Experience tells us that they are like bulls in a china shop, they *smash* every thing they touch, or have to come near.

The instrument that is broken, should be repaired the first leisure moment, whether wanted soon or not, otherwise it will be forgotten till wanted, and then you will have to wait for the repair; remember it is with implements as with garments, "a stitch in time saves nine."

All implements should be put away clean and dry; all the harness should at least four times a year, be washed clean with soap and warm water, and well greased with neats foot oil, with lampblack stirred in if you choose; this is more easily applied by having a painter's brush to put it on with; the collars should sometimes be beaten with a stick to keep the stuffing light and pliant; in summer the *collars* should often be washed and greased or the horses will gall.

Keep all your farming utensils as much as possible from the ruinous exposure to the weather, and the carts and wagons from the action of the sun—when not in use they should be under cover.—*Nous verrons.*

PATUXENT PLANTER.

Sheep—Remedy for Ewes deserting their lambs.—Let a dog bark at and teaze the lamb in the presence of the ewe, and all the natural instinct of affection of the mother will be aroused.

RUST IN WHEAT—The following theory, advanced to account for the cause of Rust or Mildew, is perhaps as satisfactory as any thing that has yet been offered on the subject. It is extracted from the Hon. Mr. Ellsworth's Report:

"At the time rust takes place, the juices of the plant are undergoing the change that renders them fit to supply the berry with its farina, and it is not impossible that after this change has been partially developed, large supplies of moisture accompanied by heat, may produce an action or fermentation of this matter, that shall change its nature, render its conversion into farina impracticable, and cause it to exude through the pores of the plant, where it becomes visible in the shape of rust.

"It is obvious, however, that much that is asserted respecting rust is mere matter of conjecture. That its origin is involved in doubt, and the manner in which it affects the plant, not well understood, is clear; but it by no means necessarily follows that this uncertainty arises from causes that cannot be removed. Men of science should investigate, and practical men should observe, and facts might thus ere long be accumulated, which would enable us to trace this and similar evils to its source, and apply the proper correctives. Time and talent however, are required to successfully prosecute such inquiries, and few men are able to devote the necessary time without compensation. It is our firm belief, that had our legislature, at the time the subject of the wheat worm was brought before them by a memorial from the State Ag. Society, made an appropriation of ten thousand dollars to be paid to the individual or individuals who should clearly determine the insect or insects that produce the worm in the ear, and place its history and habits beyond a doubt, and discover some effectual remedy to its ravages, the State would at this moment have been millions of dollars richer. The State has lavished its millions on education—Education is an excellent thing; but it is our opinion that had twenty thousand dollars been devoted to elucidating a few points connected with bread, such as the fly, worm, and rust, the agriculture of the State would soon have been in quite a different position from what it is now like to be, and the morals and education of the people quite as good.

"Some farmers have supposed that the outer covering of the stem splits in consequence of the accumulation of sap in the vessels of the plant, and that the rust is simply the exuding juices of the plant through such opening. This supposition would seem to be founded on the fact that the pores of the plants are arranged in rows longitudinally, and as the root of the fungus is fixed in these, it of course assumes the linear form. It is not impossible, however, but that as the roots of the parasite penetrate and expand, the checking the juices may cause the rupture which seems visible in some extreme cases."

LICE ON CATTLE AND FOWLS.—Hens are so lazy when setting sometimes, that they will leave their eggs so long to wallow in the dirt as to have them chill, and will not hatch well; my remedy is, to sprinkle scotch snuff in their nest, which will soon relieve them of their company. So, with cattle; I card in the snuff into the hair, which, I think, is the best and cheapest cure, one pound of snuff, for twenty cents, will do great execution in a herd of lousy cattle or flock of fowls; whether it causes the lice to sneeze, so as to rupture blood vessels, or gives them the phthisic, or some other ail, I know not, and care not, so long as they are among the missing.

Spirit of British Agriculture.

We have before us a file of late British Agricultural papers and shall glean therefrom for the benefit of the readers of the "AMERICAN FARMER," what we consider the cream of such articles as are adapted to the husbandry of our own country.

Covering Grain and Grass Crops with Straw.—The Hon. G. Gurney, of Woodleigh, Cornwall, England, has been successfully experimenting with straw, rushes and brushwood, as a top dressing for grain and grass crops. He applies a ton and a quarter of straw to the statute acre, by spreading it evenly over the crop while growing, any time between the months of April and October—and when an early crop of grass may be desirable, he spreads the straw the latter part of February. Thus far his experiments have been tried upon Wheat, Vetches, Meadow Grass and Clover-lea; but there can be no doubt it would prove equally beneficial, if applied to any other of the families of small grain and grasses. Mr. Gurney, in a letter in answer to one of inquiry upon the subject, remarks that the instances of benefit are numerous, and that there is not one upon record where it has failed, except in cases where too great a quantity of covering has been applied, or which is by far the more general, where too little has been applied.

At a meeting of the East Cornwall Experimental Club, Mr. Gurney made the following remarks:

"About seven weeks since I covered half a field of three acres of grass in this manner, and about a fortnight since, when examined, the increase was found to be at the rate of 5000 lbs. per acre over the other part of the field. At the same time the straw was raked off, and laid in rows about 12 feet apart on the field; 115 sheep were then put into the field with a view to eat it down as quickly as possible, and after they had been there about a week they were succeeded by 26 bullocks to eat off the long grass which the sheep had left. The field was eaten as bare as possible. The same straw was now thrown again over the same portion of the field from which it had been raked, and on inspection this morning I found the action going on under it as powerfully as before."

Mr. Gurney's practice is to rake off the straw and feed the grass to his sheep once a fortnight, or once in three weeks. This raking off and reapplying of the straw does not appear to us to be essential to the success of the application. What its *rationale* is, has not been as yet settled in England, nor in Russia where experiments are being carried on; but in the absence of such settlement with regard to the action of this straw dressing, there are various facts besides those adduced by Mr. Gurney going to establish its efficiency in the promotion of the growth of such grain and grass plants as it has been applied to, and with those facts to encourage experiments, it would be turning a deaf ear to the voice of experience in our country were not our agriculturalists to profit by the experience of Europe. In the South, especially, where the artificial grasses are difficult of substantial culture, we doubt not such dressings would be found of singular utility. Where *straw* may be found to be scarce, we should not hesitate a moment in substituting for it leaves and pine shatters from the forests. These fortunately can be obtained in almost all situations with us, and we doubt not would prove upon trial eminently serviceable.

Top dressing for Grass Lands.—A writer in the Gardener's Chronicle lays it down as the result of his experience, 1st. that the proper time to top dress lands is in the fall, and 2dly. that the stock should not be permitted to run thereon late in the fall. In support of the first of these propositions he maintains that as the temperature of the soil and atmosphere being cold in winter, the dung affords protection to the tender roots of the plants, and that whatever particles of fertility which may exist in the manure, are in winter washed down into the soil, and lose but little of their virtue by evaporation, and that the drying winds and sun of summer are more injurious to the manures than any drenching rain can be. Immediately after the autumnal applications of manure, he recommends that the meadows should be thoroughly harrowed—a most wise recommendation is this, one that will greatly encourage the economy of the manure.

Steeping Seeds.—Mr. St. George, of Caub, upon the Rhine, recommends Chloride of lime as a steep for seeds. The steep is made of ½ oz. of the chloride of lime to a gallon of water, and is said greatly to promote the germination of the seed. It is also said to encourage the blossoming of flowering shrubs. Might it not encourage also the bearing of fruit in trees which are shy bearers?

Cure for the Gapes in Chickens.—Dip the end of a feather in sweet oil and put it about two inches down the chicken's windpipe. (Any other oil would answer fully as well as sweet oil.)

Bones and Sulphuric Acid.—Mr. P. Davis, of Milton House near Pembridge, Herefordshire, England, stated before the Agricultural Monthly Council, that with reference to Mr. Pusey's suggestion as to the propriety of using bone dust dissolved in Sulphuric acid along with *compost* instead of *water*, for turnips, "I can confirm his idea from practice, having last year manured 2 acres with only 13 bushels of bone dust dissolved in 27 lbs. of the acid and 150 gallons of water. After standing 24 hours, the liquid was mixed with three cart loads of coal ashes and left to remain for a week, during which time it was turned over two or three times, the mixture was then drilled along with the seed; and the result was a fair crop of common turnips off a piece of poor land, without other manure, and at a cost of only 12*s.* 9*d.* per acre.

Top dressing for wheat. Salt; salt and lime; salt, lime and ashes; soot; soot and ashes, make excellent top dressings for wheat. If salt should be applied alone, two bushels to the acre, is the proper quantity: if salt and lime, 2 bushels of salt and 10 of lime should be sown to the acre: if soot alone from 10 to 20 bushels per acre, and if soot and ashes, ten bushels of each will form a most valuable mixture.

Culture of Asparagus.—The following method is described by Captain Churchill, R. M. as the one pursued at St. Sebastian in Spain. "Asparagus is a plant found naturally on the beach of various parts of the coast of Europe, where it is covered by the drifting sand and watered by salt water at high tides. Sand and salt water occasionally may, therefore, be regarded as indispensable conditions for maintaining it in health, and explain in part the excellence of St. Sebastian Asparagus. It seems that at the mouth of the Uremea is a narrow slip of land, about three feet above high-water mark, consisting of alluvial soil,

and the wearing away of sandstone hills, at whose foot it is placed. This is the asparagus ground of St. Sebastian. Beds are formed 5 feet wide, without any previous preparation, except digging and raking. In March the seed is sown in two drills, about 2 inches deep, and 18 inches from the alleys, thus leaving a space of 2 feet between the drills. The rows run invariably E. and W.—doubtless in order that the plants may shade the ground during the heat of summer. When the seedlings are about 6 inches high, they are thinned to something more than a foot apart. Water is conducted once a day among the alleys and over the beds, so as to give these seedlings an abundant and constant supply of fluid during the season of their growth. This is the cultivation during the first year. The second year, in the month of March, the beds are covered with 3 or 4 inches of fresh night soil from the reservoirs of the town; it remains on them during the summer, and is lightly dug in during the succeeding autumn; the operation of irrigation being continued as during the first season. This excessive stimulus, and the abundant room the plants have to grow in, must necessarily make them extremely vigorous, and prepare for the production of gigantic sprouts. In the third spring the Asparagus is fit to cut. Previously, however, to the cutting, each bed is covered in the course of March very lightly with dead leaves to the depth of 8 inches; and the cutting does not commence until the plants peep through this covering, when it is carefully removed from the stems, that the finest only may be cut, which are rendered white by their leafy covering, and succulent by the excessive richness of the soil. In autumn of the third year after the first cutting, the leaves are removed, and the beds are again dressed with night soil as before, and these operations are repeated year after year. In addition to this the beds are under salt water annually at spring tides. The asparagus thus produced is of the most giant size and luscious quality."

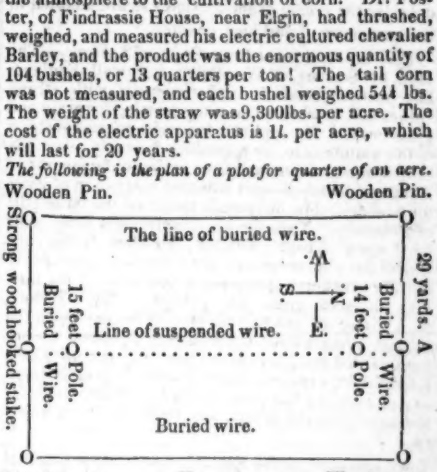
Hatching of Double-Yolked Eggs.—A late English paper says:—"The following singular, if not unique occurrence, has just taken place at the Royal Aviary, at Windsor. It having been deemed advisable by Mr. Waters, the superintendent of her Majesty's Aviary, in order to improve the breed of the genuine Dorking fowl, to cross it with the Cochin China breed, the necessary arrangements were made for that purpose. A Dorking hen, which had roosted for some time past with the fowls from China, has recently been in the habit of laying double-yolked eggs twice, and sometimes thrice a week. Mr. Walters determined to attempt the hatching of one of these double-yolked eggs, and placed it with several other eggs under the hen. The result was, that two chickens were produced from this single egg; one is a cock-bird, of the pure Cochin China breed, and the other a hen-chick, of the Dorking genus. Both are now in good health, and there is not the least doubt of their being reared. This is a circumstance, as we are informed, unprecedented in natural history."

Guano.—Provided your wood-ashes are old, you may mix them with the guano with perfect safety, and indeed with advantage, for they would supply that in which guano is generally deficient. If new, they might contain caustic alkali, which would dispossess the ammonia in the guano of any acid with which it might be in union, and thus cause it to become volatile and escape.— *Lond. Ag. Gaz.*

CORN CULTIVATION BY ELECTRICITY.

At a meeting, last week, of the Polytechnic Society of the West Riding of Yorkshire, the following description was given of the result of the first considerable experiment of applying the free electricity of the atmosphere to the cultivation of corn. Dr. Foster, of Findrassie House, near Elgin, had thrashed, weighed, and measured his electric cultured chevalier Barley, and the product was the enormous quantity of 104 bushels, or 13 quarters per ton! The tail corn was not measured, and each bushel weighed 544 lbs. The weight of the straw was 9,300lbs. per acre. The cost of the electric apparatus is 1*l.* per acre, which will last for 20 years.

The following is the plan of a plot for quarter of an acre.



COST.

	s.	d.
6 lbs. of iron wire at 4*d.* per lb. for buried wire,	2	0
4 lbs. of ditto at 3*d* per lb. for suspended wire,	1	0
2 poles of dry wood, at 6*d.* each,	1	0
Labour, &c.	1	0
	5	0

As the area increases the cost diminishes rapidly. Convenient and desirable areas are for—

Two acres, 127 by 75 yds.	½ of an acre, 73½ by 33 yds.
One acre, 80 by 55.	¼ of ditto, 55 by 22.
¾ of an acre, 82½ by 44	⅛ of ditto, 36 by 16½.

The mode in which the plot is laid out is as follows:—With a mariner's compass and measured lengths of common string, lay out the places for the wooden pins, to which the buried wire is attached, (by passing through a small staple.) Care must be taken to lay the length of the buried wire due north and south by compass, and the breadth due east and west. This wire must be placed from 2 to 3 inches deep in the soil. The lines of the buried wire are then completed. The suspended wire must be attached, and in contact with the buried wires at both of its ends. A wooden pin with a staple must, therefore, be driven in at A, and the two poles (one 14 and the other 15 feet) being placed by the compass north and south, the wire is placed over them and fastened to the wooden stake, but touching likewise at this point the buried wire. The suspended wire must not be drawn too tight, otherwise the wind will break it. [Electro culture is a very interesting subject; but we must not allow ourselves to be misled by it. It is to be regretted that Dr. Foster's experiments are not given at more length; at present they are so incompletely stated, that no opinion can be formed upon them. As to iron wires lasting in the ground for 20 years, that is inconceivable, unless they are protected in some way. Upon the whole, we think it better to wait, than to come to any conclusion either one way or the other.—*Lon. Agr. Gaz.*]

SULPHATE OF LIME, OR GYPSUM.

This substance which is a compound of sulphuric acid and lime, is found in abundant quantities in a native state, both for the purpose of agriculture and the arts; and it has been recommended for the same purpose as the muriate of lime,—viz: the fixing ammonia; but it is infinitely inferior for that purpose, in consequence of its difficult solubility—at the temperature of 60°, one part of gypsum only being soluble in 460 parts of water, to obtain which, however, the gypsum must be finely divided, and macerated for a great length of time. Its more obvious use in agriculture is, however, as a direct food to certain plants, either as supplying the sulphate of lime or, by its decomposition, affording the sulphur necessary to the due development of certain plants, such as the Crucifera, &c. The following table extracted from "Sprengel's Analyses," shows the quantity of lime and magnesia, sulphuric and phosphoric acids, in 100,000 parts in several of our ordinary crops:—

	Lime	Magnesia	Sulphuric Acid.	Phosphoric Acid.
Wheat . .	96	69	50	406
Barley . .	106	180	53	210
Oats . .	86	67	35	70
Potatoes .	33	32	54	40
Cabbage .	1822	202	744	436
Swed. Turnips	835	282	890	408
Wheat straw	240	32	37	170
Barley do.	554	76	118	160
Oat do. .	152	22	79	12
Red Clover	584	70	94	138
Beet . .	285	130	123	167
Turnips . .	127	22	41	73

The above table may not be strictly accurate, but I believe it approximates to the truth, and certainly agrees with my own practical observations respecting the exhausting powers of different crops on various soils. Cabbages are known to be one of the most scourging crops that is grown, and we see from the above table that both it and Swedes require a large amount of the sulphate of lime; the next is Red Clover, and the application of gypsum to the Clover crop, on lands sparingly endowed with this substance, has been so repeatedly treated of, that it is an act of supererogation to enlarge on its usefulness.—*Journal of Highland and Agricultural Society of Scotland.*

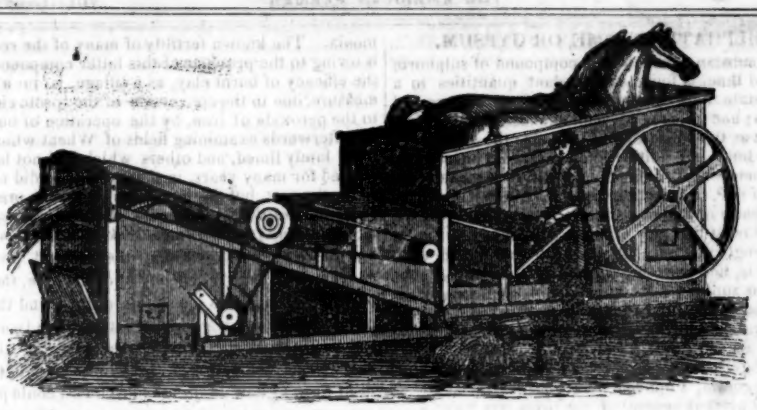
CHEMICAL ANALYSIS.—RED RUST.

As an instance of the benefit of analysis, I may here briefly mention, that on a recent chemical examination of the soil of several of our fields at Flockton, the analytic chemist whom we employed, discovered in it an appreciable quantity of phosphate of iron, and traced this substance to the cause of the Red Rust (?) which so frequently attacks the Wheat. To satisfy himself that the presence of this substance was the first cause of that disease, he collected a quantity of this rust, which he minutely analysed, and he satisfactorily proved that it was composed of phosphoric acid and iron, a combination which, it appears, is injudicious; but to ascertain a mode of correcting or decomposing this injurious compound, he subjected it to the action of quick lime, when he discovered that two fertilizing substances were immediately formed, namely, phosphate of lime, which is the chief ingredient of bones, and peroxide of iron, which also is a substance possessing fertilizing properties, both from its being an ingredient in many cultivated plants, and from its having the power of fixing ammonia. The known fertility of many of the red soils is owing to the presence of this latter compound, and the efficacy of burnt clay, as a tillage, is in a great measure, due to the conversion of the protoxide into the peroxide of iron, by the operation of burning. On afterwards examining fields of Wheat which had been lately limed, and others which had not been so treated for many years, in the former we did not discover the rust, but in the latter it was very prevalent —*On the Possibility of Growing Wheat successively on the same Land; by J. Briggs, Wakefield, England.*

[We have no doubt that the learned professor converted through the agency of quick lime, the *phosphate of iron*, into the phosphate of lime and the peroxide of iron, but we doubt whether these two fertilizing substances will prove a preventive of the red rust. If the application of quick lime through its power of forming new chemical substances, could prevent the *rust*, wheat would long since have been relieved from this destructive malady, for millions of bushels have been spread on wheat lands; but notwithstanding, the rust has continued its wrong headed course.—*Ed. American Farmer.*]

Diseases of Cattle.—*Colic.*—One pint of linseed oil, mixed with 1½ oz. laudanum. *Diarrhœa.*—give half an ounce of powdered catechu, ten grains of powdered opium, in a little gruel. *Hove or hoven*—use the elastic tube: as a preventive, let them be well supplied with common salt, and restrained from rapid feeding when first feeding on rank grass or clover. *Mange*—half a pound of black brimstone, quarter of a pint of turpentine, one pint of train oil. Mix them together, and rub them well in over the affected parts. *Milk fever or garget*—two ounces of brimstone, two ounces of diapente, one ounce of cummin seed powdered, one ounce of powdered nitrate. Give this daily in little gruel, and well rub the udder with a little goose grease. *Murrain*—half a pound of salt, two ounces of bruised coriander seed, one ounce of gentian powder; give these in a little water. Poisons swallowed by oxen are commonly the yew, the wort, and the common and the water hemlock; one and a half pint of linseed oil is the best remedy. *Purge for poisoning*—either one pound of salts in a quart of water gruel, or a pint to a pint and a half of linseed oil. *Sprains*—embrocation; one ounce of sweet oil, four ounces of spirits of hartshorn, half ounce of oil of thyme. *Sting of the adder or slow worm*—apply immediately strong spirits of hartshorn. For sting of bees, apply chalk or whitening mixed with vinegar. *To take flim from a horse's eye*—blow loaf sugar and a little salt into the inflamed eye, and in most cases it will be relieved. Sassafras buds pounded, and put in water, to stand till it becomes nearly as thick as cream, applied to the eye, is an excellent remedy for inflammation. *To relieve colic in horses*—rub spirits of turpentine on the breast of the horse; and if it be drenched with it he will be relieved. Horses should never be put to severe work on a full stomach: more horses are hurt by hard driving after a full feed, than by a full feed after hard driving.—*English Journal.*

Rare Fecundity.—On the 25th ult. the wife of George Duffie, of Jefferson township, in this county, gave birth to four living daughters! One of the girls have since died; the others when last heard from, were doing well. Beat that who dare.—*Guernsey O. Times.*



WHITMAN'S HORSE POWER, THRESHER, STRAW CARRIER & FAN.

Mr. Editor—As your paper is intended to circulate valuable information among the farmers, I think you will be doing your patrons an essential service by directing their attention to the notice of an article published in the "*Baltimore Republican & Argus*," descriptive of a machine which, if I mistake not, will be very apt to supercede most others now in use for the same purpose. It would be well for farmers before purchasing, to examine this machinery, and see it in operation. I understand Mr. Whitman has disposed of a number of these machines during the present season, and there is little doubt, I think, that the demand for them will be very much increased. Again I would beg the farmers, if they would study their own interest, to examine this machinery before purchasing. I enclose you a copy of the article alluded to.

From the Baltimore Republican & Argus.

Whitman's Threshing Machine.—On yesterday morning we had the pleasure of seeing Mr. Whitman's threshing machine in operation, and were much pleased with the manner it threshed and cleaned the grain. It has the advantage of cleaning and threshing the grain by the one operation, works with great ease to the horses, and has double the power of any other now in use. The horse-power is an improvement on the old "endless chain" (so called,) and occupies but little space, being but 9 feet long and 5 feet wide, with a platform upon which the horses travel, supported by an iron railway upon either side. The horse-power is connected with the thresher by an ordinary band, and the grain is fed in the ordinary way; but instead of the straw, chaff and grain falling together, the straw is carried off by a simple belt of slats, and deposited in one place, the chaff in another, and the grain deposited in a box, cleansed, and ready for the market. Two horses work the machine with ease, threshing from 15 to 20 bushels of grain per hour, with the attendance of but four hands. It can be operated in a common barn floor, (occupying so little space,) or can be used in the field, there being no waste of grain by the operations. Mr. Whitman informed us that he manufactures them at the extremely low price of $200, complete. Another great advantage is its simplicity, and being so constructed that it may be used with or without the straw carrier, as it may suit the inclination of the farmer. It appears to us to be a machine such as the farmers have long been in need of, and only requires to be seen to be adopted. Persons calling on Mr. Whitman can see and examine for themselves, and we have no doubt their decision will be in favor of the pattern.

☞The machinery, the trial of which is noticed above, was ordered of Mr. Whitman by *Hy. A. Lowen*, esq. of Pittsboro', N. C. to be forwarded under our direction—we accordingly requested a trial of it before its shipment, and were present on the occasion —We were much pleased with the whole operation, and although we desire to be cautious in too hastily pronouncing judgment upon newly introduced machinery, yet we could not but feel highly pleased with the operation of that under notice, and see no reason to doubt its capacity to answer all the purposes for which it is intended. The apparatus is composed of four parts, each of which can be purchased and used separately, viz. the horse-power (for one or two horses,) the thresher, straw-carrier and fan. The above engraving, with which we have been furnished, will afford an idea of the operation of the same.

Peach Trees.—At a late meeting of the New-York Farmers' Club, among the subjects of conversation was the preservation of Peach trees, as by tying a small bundle of tobacco about the trunk, a little above the ground, the drippings from which destroy the worms at the roots; or train oil poured round the trunk, or anthracite coal ashes placed there. Tansy was recommended to be planted round the trees as a preventive against worms. Col. Travers, of New-Jersey, was of opinion that the ordinary directions for killing the grubs about the trees are unavailing. Digging and manuring are the only appliances that he has found successful.

Animal Food.—The Preservation of animal Food was next talked about. A new process was described by Col. Clarke: It is to place meat in stout iron vessels and exhaust them of air. Then the mixture of pickle necessary to preserve it is admitted into the vessel and completely fills up all the pores and openings of the meat. It is said the plan has been adopted extensively for the South American market.

Prolific Cow.—Mr. Jared Wells, of Bath, says the Akron (Ohio) Beacon, has a cow which has *given birth to seven calves within one year*—three the 1st day of April, 1844, and four the 29th of March, 1845. Five of these calves are alive and growing finely. This cow has had nine calves and is but five years old. The cow is small and a good milker. The truth of this is substantiated by the testimony of several persons in the neighborhood.

THE AMERICAN FARMER.

BALTIMORE, JULY, 1845.

☞We have, of course, forwarded the present number of our new series to our old subscribers, and take the occasion to request those knowing themselves indebted on account of the former, to remit the amount due at the same time that they forward their subscription for the present volume.

☞Any one receiving this number of the "FARMER," and who may not wish to become a subscriber, will oblige us by returning the same, taking care to soil the paper as little as possible.

TO THE FRIENDS OF AGRICULTURE.—With a view of bringing the old *American Farmer* within the acquisition of all, we have, as you are aware, made it a *monthly* publication, and *reduced its price to* $1 *per year*. May we ask you to aid us in the desirable object we have at heart—of carrying the lights of agricultural science and improvement to every farmer and planter's door? The trouble to you, of interesting your neighbours to subscribe, will be so trifling, as to impose no tax upon your time; and judging you by ourselves, we know it will be a pleasure, because it will afford you the high satisfaction of having been instrumental in elevating the character of your calling, by encouraging a propensity for agricultural reading, whose results must tend to improve the condition of your countrymen, and augment the necessaries and comforts of life.

C. B. CALVERT, Esq'S RESIDENCE, "RIVERSDALE," AND PORTRAIT OF HIS DURHAM COW "CINDERELLA."—It is a source of high gratification to us to be able to grace the first number of our new series, with a view of Riversdale, the splendid *homestead* of that distinguished agriculturist, *Charles B. Calvert*, Esq. The likeness of *Cinderella* in the foreground, is true to the life, and may be considered as a fair type of that noble herd of Durhams, the pride of Maryland, owned by Mr. C., which are at once the ornaments of his broad acres, and the evidences of his public spirit and patriotism.

The following is the pedigree of CINDERELLA:

CINDERELLA—white with red spots on head, neck and legs, was calved on the 20th April, 1838, and got by York, who was out of Young Jenny by Red Holderness; g. dam Old Jenny by imported Eclipse; Red Holderness by Holderness out of Flora, by Denton; Denton by Old Denton, and Old Denton by celebrated Comet, sold for 1000 guineas. Holderness was bred in North Alerton, England, by Geo. Faulkner, Esq. and was exhibited in 1829, weighing 2700 lbs.; Old Jenny took a premium at the Hartford Cattle Show for 60 pounds of butter made from her milk in thirty successive days.

Cinderella's dam was imported Mayrose; g. dam Judy by Wizard, got by Comus (1863 of Herd book,) dam by Rufus (2576), g. dam by Young Lancaster, (1162), g. g. dam by Alfred (23), g. g. g. dam by Mason's Blaize; g. g. g. g. dam by Butterfly, (104 of herd book); g.g.g.g.g. dam by Collings' White Bull.

CINDERELLA took premium No. 2, being second best calf exhibited at Philadelphia Ag. Society's fair in 1838; and 1839 she took premium No. 1, at 18 months old, beating her successful competitor of the previous year, and all others of her age. In 1844 she took at Philadelphia the first premium as the best Durham cow over three years old, and in October of the same year she took the first premium of the Prince George's county Agricultural Society as the best Durham over 4 years old. Her last calf at 12 weeks old was sold to the butcher for $28, and weighed, 24 hours after he was slaughtered, 250 lbs. net, being the finest and the highest priced calf ever exhibited for sale in the Washington market.

VIEW OF THE RESIDENCE JNO. H. B. LATROBE, Esq.—We intended to have presented our readers, in this number, with a perspective view and a ground plan of Mr. Latrobe's cottage at *Fairy-Knowe*, well known to all travellers on the Washington or Baltimore and Ohio Rail Roads, as the country seat seen through an opening in the woods immediately opposite to the Relay House—but have been provokingly disappointed in regard to it. The drawings were sent to an artist in Philadelphia, and a pledge obtained that the engraving would certainly be ready for us by a specified time; after delaying the publication of our paper several days awaiting its reception, we received an intimation that so little progress had been made in its execution, it could not be finished in time for the present number. It is now placed in the hands of one of the best engravers of Philadelphia, and will be presented with our August number.

THE ENGRAVINGS FOR THIS NUMBER—It is but just that we should state, that the beautiful engraving of a view of "*Riversdale*," with the portrait of the cow "*Cinderella*," with which our present number is embellished, was executed by Mr. *J. H. Brightley*, of Philadelphia, and will be pronounced by every competent judge, as highly creditable to his skill, and as an evidence of the great progress which has been made in the art of engraving on wood. It was taken from a painting by an artist of Washington city.—The appropriate heading for our paper was designed and executed by Mr. Tho. H. Mumford, an accomplished artist also of Philadelphia; the cuts of the Dolphin Plow, Cultivator, and Trap, by Mr. T. P. Plummer, of this city; and the Horse-power, &c. is a stereotype from an engraving by Mr. Jno. Horton, late of this city, but now of New York.

ACKNOWLEDGEMENTS, NOTICES, &c.

☞We are indebted to Hon. *R. Johnson*, U.S. Senator, for a copy of the Report of the Commissioner of Patents, for which he will accept our thanks—The receipt of this truly valuable public document, reminds us of a paragraph which we saw a few days since, stating that the Hon. Mr. *Ellsworth*, will continue to collect and mould into form those valuable Agricultural Statistics, which, of late years, have given such deep interest to the papers emanating from the department over which, until lately, he presided with such singular ability. This will be gratifying news to our agricultural readers, and we, therefore, seize this occasion of heralding it in this the first number of our new series.

☞We have received from the publisher, Mr. *Arthur D. Phelps*, Boston, the three first numbers of professor Colman's European Agriculture, and take pleasure in commending the work to the patronage of the Agricultural public. Mr. Colman is celebrated for his close observation, acute discrimination, and bold and accurate thinking. As many of our readers are aware, the object of his visit to Europe was to collect from personal observation, and condense into a readable form, whatever, relating to European agriculture, that might prove of value to the

CAMBRIA.

The property of B. B. Calvert, Esq. of Riverdale, Prince George's co. Md.

American husbandman. Thus far he has collected and sent home the manuscript of three numbers which have been published in handsome style; but the beauty of the materials and the splendor of the workmanship which characterise them, are more than equalled by the vast amount of solid information with which they are filled. The author has had facilities of gleaning from every available source, and most truthfully has he improved them, and as no man possesses better qualifications than he, so has he exerted them in a way to make a book that will find favor with all agriculturists of taste and judgment.

Let those who desire to keep pace with the agricultural improvements of Europe—who desire to obtain their information from a reliable source, subscribe for professor Colman's work, for they may take our word for, it should be in the library of every farmer and planter in the country. We have given in our present number several extracts from this work, which will be read with interest by our readers. ☞Subscriptions will be received at the office of the "*American Farmer*," and forwarded to the publisher.

☞We are indebted to *Luther Tucker*, esq. the Recording Secretary, for a copy of the "*Transactions of the N. York Agricultural Society for* 1844," which, as usual, contains many papers and essays of power and interest. We shall carefully collect from the mass such parts as strike us to be of most moment, and lay them, from time to time before our readers.

☞The *communication* of *D. W. Naill*, esq. which appears in the present number, will address itself to all thinking farmers. To very high attainments in the science of agriculture, Mr. Naill superadds a practical knowledge of farming gained by many years experience—an experience no less impelled by zeal, than enlightened by close observation, and that power of analysis and deduction, which enables the inquirer to trace cause from effects. Upon the important topics discussed by him he courts discussion; and we trust that the suggestions which he has so courteously thrown out, may draw forth a reply, in the same spirit, as it is pleasant to be a spectator when frank and ingenuous minds meet upon the broad platform of public good, to contend in collisions of the mind, animated by the desire of eliciting truth, in behalf of the noblest art that ever challenged champion to the field.

In a subsequent communication, dated 22d June, Mr. Naill remarks:

"I have no doubt that unthought of results can be produced by properly attending to the simple preparation of land for all kinds of crops—having an eye to the *moisture* and *heat*. I have this season been looking closely at the growth of summer crops —the result is the same as of winter crops. I have seen a good farmer from Carroll co. since I wrote you, and mentioned the principles I thought essential in preparing for a winter crop—he said they were proven on the farm adjoining him—he had sowed clover ground with one ploughing (plowed in July,) crop very good; his neighbor had sowed one field so, which was good, and stirred another, which was not half a crop—a difference I should not have looked for after so mild a winter.—I procured a thermometer last week, and shall have a look out about temperatures during the fall. A friend at New Windsor made an experiment for me on the 19th June,

Just before a gust:	Morn. after gust, at 7 o'ck. A.M.
Open air, in the shade, 86°	Open air in the shade, 75°
Corn field, 6 inch. deep, 85°	Same field, spot&depth 75°
Pasture field, 6 in. deep, 82°	Pasture field, do. 73°
	Garden, very light soil, 70°

"Our grain is very much down—and although there is much smut, still I think the crop a fair one. We shall commence cutting in a day or two."

☞A volume with the title of "*The Sportsman and his Dog*," has just been issued from the press, written and edited by the Hon. *John S. Skinner*. To those who know the author it would be superfluous to say, that it is a book full of interest; for they do know that he never touches any thing but to embellish and adorn—but to those who may think the *subject* not susceptible of being so treated, we will remark, that it is a book which all may read to advantage, as it is replete with anecdotes of men and dogs that will find willing ears and approving judgments.

☞The essay of our old friend, *Sidney Weller*, is gratefully received, and we shall be gratified to receive his promised essay on Wine making, as from his experience and the high reputation of his Wines, he is just the man to give instruction in that branch of husbandry. Our arrangements for the present number having been completed before its reception, we are compelled to defer the publication of friend Weller's communication to our next.

☞The *Farmer's Library*, a monthly agricultural magazine, edited by that *veteran* friend of the husbandman, and distinguished writer—the Hon. John S. Skinner, issues this day from the press of *Greely & McElrath, New York*. It is $5 a year. The name of its editor is the bond and guaranty of its character—and in our heart of hearts we say,—God speed the Farmer's Library, for with Skinner's genius, industry, knowledge and holy zeal, it cannot fail to do more than a husbandman's service.

EXTRAORDINARY YIELDS OF WHEAT—Professor Colman, in the second part of his European Tour, says:

"Another witness, before a Parliamentary committee, testifies, that on the estate of Lord Howard, Barbot Hall, in Yorkshire, a rood—a quarter of an acre —of land was dug and planted with wheat by his lordship's direction, and 28 bushels of wheat were obtained, which would be at the extraordinary and unheard of rate of 112 bushels per acre.

"The authenticity or rather accuracy of such a statement as this may well be questioned, but I have the pleasure of presenting one, exhibiting a most extraordinary yield, on which full reliance may be placed.

"In visiting Horsham, (the last summer,) in the county of Sussex, my attention was strongly attracted by two small pieces of wheat in a garden by the road side, exhibiting an extraordinary luxuriance; and I have been able to obtain a detailed history of its culture and yield, through the politeness of C. S. Dickens, esq. of Coolhurst, near Horsham.

"The seed of this wheat was brought from Australia, being the product of some wheat which had been sent there two or three years before. The quantity of land sown, in one of the pieces, was 34 square yards. The wheat was dropped in rows 9 inches apart, and in holes 6 inches apart, and only 1 grain in a place. The number of grains planted was 682, out of which 33 failed in germinating. The cultivator obtained 4 gallons of good wheat from the land, exclusive of several of the finest plants which he saved. The usual number of stems from each seed was 18 to 20, a considerable number gave 30 to 35, and one was counted which had 40 full sized stems, and 3 of a smaller size. The product was at the rate of 71 bushels to the acre."

ETRURIAN WHEAT—The following communication from a valued friend and correspondent, who is himself a most intelligent, enterprizing and successful farmer, deserves attention for the information it contains relative to this variety of wheat, the in-

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troduction of which into our State will doubtless be attended with the most beneficial results to the farming interests. We shall be happy to hear from Mr. Zollickoffer as to the yield of this wheat at the present harvest, and also any other particulars relative to it, which may be deemed of interest to his brother farmers—and should he have any of the seed for sale, it will no doubt be eagerly sought after in this market, if it can be had at a reasonable rate.

To the Editor of the American Farmer :

Mr. Editor : Any improvement in the various kinds of Wheat, is a subject of much importance to the agricultural community generally, and when any thing has been effected in this way, it cannot be too generally disseminated.

Many have been the efforts to introduce foreign wheats and assimilate them to our soil, but very few were found to which our climate was congenial. Among the most valuable is the "*Mediterranean.*" The success with which this variety was cultivated, induced a search after a better kind, possessing the same advantages, but without its objections, among which is its weakness of straw, causing it invariably to fall on ground of much fertility ; it is also a bearded wheat, which is a decided objection, making it very disagreeable to handle, and withal a very dark wheat. But a variety has been introduced by Com. Stewart, called the "*Etrurian,*" which possesses all the advantages of the Mediterranean, and has, besides, a remarkably strong and vigorous stalk. It is quite as early as the Mediterranean, and has a beautiful long smooth head. The grain is of a superior quality, being round, plump and white, with a remarkably thin bran.

My attention was attracted to this valuable wheat a few days since, on the farm of the Rev. *Danl. Zollickoffer*, near Uniontown, in this county. On enquiry I found that Mr. Zollickoffer (who by the by is one of our most enterprising and successful farmers) had procured it from Com. Stewart's second crop Mr. Z. has cultivated it two years, consequently full opportunity has been afforded to give it a fair trial, and he assures me that instead of deteriorating, as most foreign wheat generally does, it has improved in every crop that has been grown in this country. I saw it growing beside the Mediterranean, both sown at the same time, about the middle of September, and on ground of the same quality. The Etrurian is equally as forward as the other, and much better headed. It is the richest piece of grain I think I ever saw, and must yield very abundantly, although growing upon ground of but medium quality.

This wheat is not, as its name would indicate, brought from the little island of Etruria, but from Italy. It will very probably ere long, supercede all other kinds of wheat, as it certainly possesses decided advantages over them. One great recommendation of it is, its being so early as to be in no danger of the rust. It is believed, also, to be fly-proof, as no fly, I am informed, has been discovered in it since its introduction into the U. States.

The prospect for small grain in this county is very good, and the yield will be above an average one. The frosts on the 30th and 31st ultimo, have done some damage to the wheat and rye in low situations. I have a piece of rye almost entirely killed, and which will not probably yield the seed. The corn is very backward, owing to the continuance for a long time of cold and dry weather. It is now, however, recovering, and will doubtless yield an average crop. The oats generally look miserably, and will be a failure. Yours, truly, A. S.

Pipe Creek, Carroll Co. Md. May 10th, 1845.

☞Believing that there would be considerable enquiry relative to the wheat above mentioned, as soon as we received the communication of our correspondent, we wrote Mr. Zollickoffer to enquire if there was a probability of his having any seed for sale. In reply he informs us, under date of June 17th, that he may probably have over 200 bushels to spare more than he has engaged. He adds :

"It strikes me from my last year's experience and this year's promise, that Com. STEWART has done a good service to the Wheat growing part of the country by the introduction of this new variety—Cutting of the early wheats will commence in this vicinity the first of next week at farthest ; the cool spells which we have had, tho' they retard the ripening, are favorable to the filling the grain. The wheat crop in Carroll has never been better, and the promise for the present is thought by some not to have been equalled by any for the last ten years—Grass crop light—Oats poor indeed—Corn begins to look up—In the midst of all, however, we have great cause of thankfulness." Mr. Z. adds that he received the seed from which his present crop of Etrurian was growing, through his brother, Mr. H. M. Zollickoffer, of Philadelphia, who obtained it in person from the Commodore's farm near Bordentown, N. J.

MAY WHEAT—A correspondent at Clear Spring, Washington county, Md. writes us, June 4, that his May wheat was already filled, and would be ready to cut in 10 days or perhaps sooner. He considers it superior to any other variety.

L. B. Finley, esq. of the Cubb Hill farm, Harford turnpike, near this city, left with us about 1st June, a stalk of Wheat, 6 feet high, which he considered a fair average of a six acre field. Mr. F. informs us that when he took charge of this farm, several years ago, it was so poverty-stricken that the whole farm of several hundred acres, would scarcely produce grass sufficient for the support of half a dozen head of cattle ; he commenced the burning of lime, and with the refuse of his kilns, he has brought his farm into a state of tilth, which would bear comparison with the boasted farms of Lancaster or Chester co.

TOBACCO TRADE OF BALTIMORE—This city is becoming the grand depot of Tobacco for the U. States. Notwithstanding the 5th Inspection Warehouse has been opened this spring, (and each one from their dimensions it would have been supposed would have been capable of containing all grown within the reach of this market,) yet it is certain from the increase of the trade, that the next Legislature will be compelled to direct the erection of additional warehouses, for the reception of the immense quantities which are pouring in upon us from our own State, as well as from the Western States ; and as our works of internal improvement are extended, the ratio of improvement in the trade will be greatly increased.—The receipts for the months of May and June average 9,000 hogsheads each ! The demand for good and fine qualities has been steady, at fair prices, but a large portion of that recently received is of the inferior sorts, for which there is not so much demand, and if the sales of which are forced, a reduction in price must be the consequence.

Having many readers engaged in this branch of agriculture, we shall give a full share of attention to every thing connected with their interests.

RESUSCITATION OF WORN OUT LAND.

Four years ago two gentlemen of this city bought each a ten acre lot, adjoining each other, on the road leading through the Canton property to Patapsco neck. At the time of the purchase, these lots were the very pictures of poverty personified, slightly covered with sedge grass of a stunted growth.—Some years previous we had seen them in corn, with stalks not higher than 4 or 5 feet, about the thickness of a man's thumb. As to ears of corn, there were none—of nubbins even, the product was scarcely worth gathering. The first spring after these lots came into the possession of their present owners, they each ploughed his respective lot as deep as strong double horse teams and good ploughs could plough it, then put on 30 double horse cart loads to the acre, of compost formed of street dirt and stable manure, then cross-ploughed the manure in some 4 inches deep, spread a hundred bushels of soap boilers ashes to the acre, broadcast; harrowed and rolled their ground, listed it 4 feet by 2, and planted it in corn, putting a hand full of plaster and ashes on each hill. The product of good long eared sound corn, was 86 bushels to the acre of *shelled* corn. The cultivation of the corn, after the first ploughing, was with the *cultivator* and *hoe*, the object of the proprietors being to maintain a *flat surface*, with the view of seeding the lots down in grass. In August, after the corn had been laid by, the harrow was passed thro' the rows, and a peck of timothy seed and 8 lbs. clover seed, sown upon each acre, which was harrowed in with a light harrow. The grass seed took well, and has produced from two and a half to three tons of excellent hay to the acre last year and the year before. We saw these lots a few weeks since, and from their luxuriant appearance, we should judge, that their yield, of the present, will be equal to that of the two preceding years. In looking at them it appeared a marvel to us, where they would find space to cure the hay after they should cut the grass, so heavy and luxuriant was the stand of plants we saw growing on it. To enable the uninitiated to understand what is meant by soap boilers ashes, we will remark, that they are *spent ashes*, and generally contain about two-fifths of lime in their composition; so that he who uses them, both ashes and limes his land at one and the same time.

A great horror is generally entertained at buying worn-out lands—and, indeed, where means and plenty of money are not at hand to improve them, this horror is very justly entertained; for no melioration can be produced until you restore to the soil the elements of fertility of which it may have been deprived by long continued and improvident culture—but where the soil has been *once good*, it is an easy matter, with the proper kind of manure, and plenty of it, to restore its wonted fertility. That such is the case, the lots in question offer the strongest evidence that can be desired of the truth of the proposition we have assumed. For from a state of abject poverty, they were brought up by a single manuring to the very highest condition of fertilization, and have now, for the third year thereafter, maintained it.

The facts presented by this instance of restoring lands, once good, after being impoverished by an improper course of culture, should not be without its *moral*, as they hold out inducements to the owners of such lands to exert themselves by all possible means, to accumulate manures and apply them to their exhausted fields, as there are none so poor but may be brought up by proper applications, in sufficient quantities, of vegetable, animal and mineral manures—and they point too, with unerring certainty, to the propriety of undertaking the improvement of no more land at a time than can be well improved. —We are very certain, that neither of these lots, unaided by manure, would have brought more than 15 bushels of corn to the acre, and yet we see their poverty stricken soils brought up, in a single season, to the capacity of yielding 86 bushels, being over five times that quantity, and continuing their fertility for four years in succession, with every prospect of a thorough restoration having been effected.

South Downs—Whilst on a recent visit to Philadelphia we called on *Aaron Clement*, esq. the Secretary of the Philadelphia Agricultural Association—We found Mr. C. just preparing for shearing a lot of superior Sheep—among them two of the most splendid Bucks we have seen for many a long day. We had some expectation of receiving for insertion in the "Farmer," a portrait of one of these rams, but it has not come to hand. We notice by an advertisement in the "Farmer's Cabinet," that Mr. Clement offers his services to the public for the purchase and sale of improved breeds of Cattle and Sheep—From the great experience and superior judgment of Mr. C. in such matters, we can with confidence recommend to our friends who may desire the services of an agent in that vicinity, to entrust their commands with him. ☞If any gentleman is desirous of obtaining a *very superior* Buck, we advise him to lose no time in securing one of those now in the possession of Mr. Clement, as it is seldom such an opportunity is offered.

Mr. Gowen's Farm—We had intended also to have visited, while in the city of "Brotherly Love," the celebrated farm of our valued friend, *James Gowen*, esq. but learning that he had been suddenly called from home by the indisposition of a beloved child at school in Frederick county, Md. we determined to postpone our visit to another opportunity, which we hope will be ere long. Mr. G. on his return took our city in his way, and favored us with a call, when we were gratified to learn, that his daughter had so far recovered as to be out of danger.

The admirable skill and success which have been evinced in the management of his farm by Mr. Gowen, has attracted the attention of agriculturists of ev-

ery section of the country—and it may be looked upon, and indeed is so considered by many of the most distinguished friends of Agriculture, as the *model farm*—and the period is at hand, when an Agriculturist who feels a just pride in his profession, will no more fail, when business or pleasure carries him to the city of Penn, to visit "*Mount Airy*," than would the patriot on touching the shores of the Potomac, neglect the venerated shades of *Mount Vernon*.

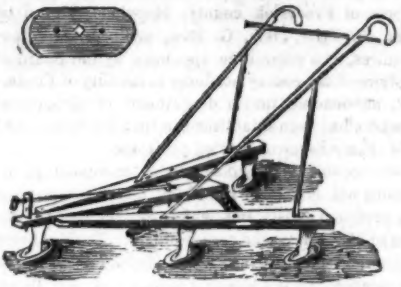
Among the eminent men who had recently visited Mr. Gowen's estate, we understood was Gen. *Wm. H. Richardson*, Secretary of the Commonwealth of Virginia, a gentleman whose devotion to the best interests of his State, justly entitles him to rank among her greatest benefactors of the palmiest days of the Ancient Dominion. His enthusiastic devotion to the cause of agriculture, and other philanthropic objects, is doing much for the improvement of the condition of Virginia; and his visit to Mr. Gowen's, where, we learnt, he had spent several days in examining the various operations on the farm, management of the stock, &c. was no doubt for the purpose of introducing such improvements into his State, as his well disciplined judgment may deem advantageous.

Mr. Blair, the well known editor of the Washington "Globe," having vacated the editorial tripod, and turned his attention to farming, recently paid a visit to Mount Airy, and obtained permission for his Manager to spend some time there, in order that he may be the better qualified to conduct the affairs of his employer, according to the most approved discoveries in the art and science of his profession. A correspondent at Philadelphia, thus writes to the editor of the Washington Union upon this subject:

"Several days ago, accompanied by a friend, I paid a visit to the model farm of James Gowen, esq. called 'Mount Airy,' a few miles from this city. Mr. Gowen is unquestionably the most successful agriculturist in Pennsylvania, and this is saying a great deal. His farm is a proof of the successful application of the principles of science to the practical purposes of agriculture, and shows conclusively how much depends upon the intelligence, skill and perseverance of the farmer. At Mt. Airy, all the latest discoveries in farming—all the new discoveries in wheat, grass, &c.—all the choice fruits and ornamental trees, may be seen in their most attractive forms. Mr. Gowen's stock of Durham cattle is alone worth a day's travel to see. These beautiful animals have carried off some of the best agricultural prizes of the country. F. P. Blair, esq. who designs cultivating a farm in the vicinity of Washington, visited Mount Airy a few days ago, and was delighted, as well as edified, at all he saw. He expressed a desire to take advantage of some of the experience of Mr. Gowen, and I am assured he found that gentleman anxious to communicate his most valuable information."

Our attention has been drawn to the subject of these remarks, by the reception, in the last "Cabinet," of a Report to the Philadelphia Society, by Mr. Gowen, on the management of his farm, which we exceedingly regret our inability to publish in the present number. It is laid off, with a number of other "*good 'uns*" for our next, when, it may be, we will be enabled to accompany it with a portrait of his celebrated "*Dairy Maid*," or her calf "*Leander*."

SELF-SHARPENING CULTIVATOR.



The above cut is a representation of *Birdsell's self-sharpening Cultivator*, which by its construction we think admirably adapted for fine cultivation, weeding and saving time and expense of repairs; the cutting part, or steel plate, is shewn separate from the cut, which may be reversed or extended as it becomes dull or too short.

They are manufactured in this city by Messrs. SINCLAIR, jr. & Co. who rank it among their most valuable agricultural machinery.

ANALYSIS OF SOILS—A gentleman of this city, on a visit to his friend, Mr. *Jolliffee*, of Va. noticed a field containing a quantity of matter, which prevented any thing being grown therein, tho' the rest of the farm was very productive. He brought to us a small parcel of the substance, which at our request having been analysed by Prof. *Baer*, the following is given as the result: *In 50 grains of Soil:*

Lost by red heat, - -	7 grains
Lime, - - - -	17.70
Alumina, - - - -	6.
Carbonic Acid, - - - -	13.75
Potash, - - - -	.50
Iron, a trace.	
Insoluble matter in acid at the tem. 212,	4.
Loss, - - - - - -	1.25——50.00.

"The above is the analysis of the soil you handed me for examination, of Mr. H. Jolliffee, Brucetown, Va. It is a valuable compound for top dressing for light soils. It contains a large per cent. of vegetable matter, which was lost in burning—If Mr. Jolliffee wishes other information, on its application to the different soils, I will give it—No doubt he has soil on which it would be more valuable or permanent than manure.

Yours, W. BAER."

EXPORTS OF TOBACCO FROM NEW ORLEANS.—The shipment of Tobacco, it will be seen, has been nearly tripled within the last 10 years, from the port of New Orleans—and is within a fraction of the entire quantity exported from the U. S. in 1833, (83,153 hhds.) It has more than doubled itself, it will be seen, since 1840, thus showing what rapid progress is being made in the production of the weed in the Western States. A large quantity of Western Tobacco also finds its way to the port of Baltimore, by the internal improvement lines. The price of Tobacco in Europe in 1840, averaged $81 05 per hhd. whilst in 1844 it averaged only $60 11.

Tobacco shipped from New Orleans for the last 10 years:

1835,	33,801 hhds.	1840,	40,436 hhds.
1836,	41,634	1841,	54,667
1837,	35,821	1842,	68,058
1838,	31,555	1843,	89,891
1839,	30,780	1844,	81,249

AGRICULTURAL PROFESSORSHIP.

The *Frederick Examiner* contains an *address* to the people of Frederick county, Maryland, signed by *Wm. B. Tyler, Wm. G. Ross,* and *Samuel Tyler,* Esquires, as a committee appointed by the Board of Visitors of the county academy in the City of Frederick, announcing that a department of *agricultural chemistry* has been established in that institution, and *Wm. Baer,* Esquire, elected professor.

We are highly gratified at this movement in the sterling old county of Frederick, and must express the profound satisfaction which we feel at the selection of Mr. *Baer* to the professorship. Besides being a practical chemist—one enthusiastically devoted to the science—he is a *practical farmer* also, and therefore the better qualified to apply the mysteries of the science of chemistry to the uses and purposes of husbandry. To be the pioneers in so holy a work, as making the science of agriculture part and parcel of the education of the youth of our state, is glory enough for an age, and this example, so proudly set, of vindicating before the American people, the just claims of the planting and farming interests to academic honors, distinctions, and knowledge, will encircle the brows of the people of Frederick with a chaplet more lasting than any which ever graced the frontlet of chieftain or monarch. Theirs will be a wreath, awarded by grateful hearts, to men whose labors were devoted to advance the noblest calling that ever challenged human intelligence, and human industry, to exert their powers for the benefit of mankind—to promote the beneficent objects of christianity itself, by elevating that calling most allied to virtue, to its just rank amongst the institutions of civilization.

To us it has always been a source of regret, that the farming and planting communities had so long manifested such culpable indifference. While almost every other class, in the organization of colleges and institutions of learning, had its representative department, to give tone to, and nurture its peculiar interests, the husbandman, the sustainer of all, stood aloof, with folded arms, and never made the least effort to assert his claims. But thanks to the stalwart hearted, and clear headed men of Frederick, the lethargic spell has been broken, *agriculture* has assumed her rank among the votaries of science, and henceforth a brighter era is to be opened to the tillers of the soil. We hail this as the auspicious beginning of a most glorious end—and in order that our distant readers may be able to properly appreciate the nature and extent of the objects to be gained, by engrafting an *agricultural professorship* upon a seminary of learning, we annex the following *programme* of the views of the friends of the enterprise, as contained in the able address of the Committee:

The undersigned hope that in this brief address they have shown forth the importance of agricultural chemistry with sufficient clearness to attract the attention of the people of the country to the subject. But in order to derive advantage from agricultural chemistry, it is necessary to make it a part of academical education. It must be taught in our high schools in order that the rising generation who are to cultivate our fields may be instructed in its important truths. With this view, the visitors of the County Academy have established a department of chemistry in the Institution. And Prof. Baer is now fitting up in this department a cabinet of minerals and soils which he has collected at much expense and labour, and has made them a present to the Institution for the benefit of the county. It is proposed to procure soils from every part of the country and have them analyzed and the results of the analysis set down in a register in order that the different soils of the various sections of the country may be known. It is also proposed to make agricultural surveys and form maps showing the various agricultural indications, such as the slopes, exposures, soils, &c. of the sections of the County. So that on inspecting the Register and maps of the chemical department of the county Academy, the agricultural capabilities of every part of the County can be seen. Prof. Baer will deliver regular courses of lectures on Chemistry in its connection with Agriculture, and apply the principles of chemistry to the agricultural statistics of the county, and show how the different soils may be improved.

It is important too to the attempt thus made to diffuse a knowledge of agricultural chemistry through the community, that agricultural societies should be formed throughout the County, and so affiliated as to have meetings of delegates periodically in the hall of the chemical department of the County Academy, and take such measures as will promote the great cause of scientific Agriculture; and at the same time learn from Professor Baer, what improvements have been made in the practical part of agriculture, not only in this, but in foreign countries; and also communicate to each other their own individual experience.

And we will now crave permission to express the hope, that this admirable example may be followed throughout the union, for of a truth, it is worthy of the emulation of every patriot in the land.

☞The duties of Prof. Baer leading him to various sections of our State, he has, at our request, consented to receive and forward subscriptions to the "American Farmer."

The facts contained in the annexed paragraph from the *Maine Cultivator* should come home to the bosom of every man engaged in agriculture. We rejoice to say, that there is a spirit abroad in our own State, which argues well for her regeneration. There is an evident disposition to shake off the lethargy by which she has been prostrated, and we hope and trust that every patriot and philanthropist will put his shoulder to the wheel, in order to arouse the dormant energies of our people, and place our State on that eminence to which she is entitled by the advantages of her central position, the favorableness of her climate and the natural kindness of her soil. That this can be accomplished is evinced by the example of our neighbors of Harford county—but a few years ago, her farming operations and the poverty of her condition was almost a by-word of reproach; but the facilities which have been opened to her for the obtainment of lime and other meliorators of

the soil, having been embraced by a few of her more public spirited sons, the beneficial effects of their wisdom and energy have stimulated their neighbors to follow their laudable example, and we have reason to expect that ere long her land will be brought to that point of fertility and value for which her sisters of Frederick and Washington have been so proverbial. Land which could have been bought a few years ago, at $5 per acre, could not be had now for $50! and the march of improvement is still onward—May the good work continue to spread.

☞ Since the above was written we have been informed by a gentleman of Harford, who has himself been one of the pioneers in the good work which is now going on there, that at a sale which has recently been made, $80 per acre was realized—a fact perhaps unprecedented in that section of Maryland.

OUR AGRICULTURE.—This country enumerates at present not far from sixteen millions of white population.—According to the census the entire number of individuals employed in manufactures and the mechanic arts, is less than five hundred thousand. Commerce employs a much less number still, and if we allow one and a half millions to be employed in mercantile occupations, which in all probability is a large estimate, we shall have for agricultural employments the overpowering number of fourteen and a half millions. Now what, we inquire, is wanting but intelligence, and a proper respect for their calling, on the part of the tillers of the soil, to render agriculture "honorable?" With the requisite *quantum* of intelligence and self-respect on their part, all that could be requisite, under *any and every modification of circumstance*, would follow as an inevitable result. We hope *all*, ALL who are interested in the cultivation of the soil, will duly ponder these things.

THE CAUSE OF AGRICULTURE—The following communication is from one of the oldest patrons of the "*American Farmer*," a gentleman of enlarged mind and liberal views, who has ever evinced a deep interest in the success of Agriculture in his State, and to whom we embrace the occasion to render thanks for this token, added to many others, of his zeal and kind feeling in behalf of our journal:

Mr. Editor—It is certainly a just cause of congratulation to every correct observer of the progress of our country, that AGRICULTURE has risen to that elevated position in the estimation of all classes of society that it justly claims, and most especially in the estimation of our citizens filling distinguished places in the public view, for their talents and virtues, and from which it was a long time debarred, strangely, by ignorance and prejudice. The zeal displayed in its behalf throughout our country by men of the first acquirements in science, presents a most gratifying sight to every sound mind, and must give to the followers of agriculture, if at all enlightened, an agreeable idea of the true *dignity* of their pursuit. Gentlemen who excel in Geological and Chemical knowledge, have established legitimate claims to the gratitude of agriculturists, while legislators have not been idle—and it must be truly gratifying to the followers of this pursuit, to see over our common country, gentlemen distinguished for their political science and extraordinary wealth, talents and virtues, struggling to be also *distinguished* by public usefulness, in the cause and progress of the FARMER. Nor has that engine, the PRESS, the power of which is hourly seen and felt among mankind, been behind in the career of public usefulness. The devotion with which it has enlisted in the cause of Agriculture can never be forgotten by men of sound sense and common gratitude. The names of such men as Buel and Skinner—Ellsworth, Legare and Tucker, with many more, will be repeated with a degree and kind of public gratitude, that any man might envy them the possession of, when the thousand bustling, bubbling, *mere* politicians of the day, the ephemeral political insects, who owe their present unmeaning applause to accident, or the breath of party struggle, will be forgotten. Nor has the usefulness of the Press been confined to merely *scattering* agricultural improvement amongst the laboring population of the country. By a most praiseworthy exertion, it has brought the acquisition of this knowledge, by the *terms* of Agricultural works, home to the firesides of all, even those in narrow circumstances, and in addition, by valuable improvement in the *form* of publications, as well as in the *matter*, have, and are producing *books* fitted for the shelf of any library.

Those who have endeavoured to connect intelligence with agricultural pursuits, and have been readers of the *American Farmer*, and its kindred prints, for the last twenty odd years, with much gratification look on the intended change in the mode of publication, with anticipation of a number of good consequences, that are to arise out of it, as regards the work and its usefulness. That indefatigable labor, which has been impressed on its very pages, can now be directed with more calm leisure, in the judicious selection of valuable matter from the great mass of excellent foreign and domestic publications, ushering almost every day and spreading through the country, and from the unbounded access which it is well known to the country, that press for a long time has commanded, it is confidently expected the *New Series* will not be surpassed under the circumstances, and will indeed, be the "*Spirit of Agricultural Journals.*"

While we must acknowledge with pride and pleasure, the aid given by scientific talent to the improvement of Agricultural pursuits, we cannot, in justice to the subject, for a moment lose sight of the grand impulse given on all sides by the PRESS, and it would be ungenerous to suppose any man of sound sense did not see, not only the obligation we are under to give it a *liberal support*, but the sound *policy*, as regards the agricultural *interest* of the country to support it, *cheerfully* and *spiritedly*. When enlisted in the cause of our best worldly *interest*, it is a holy treasure that we ought religiously to foster.

Acting on this principle, Mr. Editor, you will please put me down for *five* copies—*one* for my own reading, and *four* to put into the hands of some worthy persons in humble circumstances, to whom a *small* sum is of *great* consequence in these hard times, to support families and educate children. *Liberality* in all cases is a very pretty thing, but I have always thought that to carry to the fireside of the *poor man*, who is *willing* to *learn* what is certainly his great advantage to know, if he had the means of knowledge in his grasp, is a very pretty way of exercising it.

A PLANTER.

ALABAMA, May 24, 1845.

Agriculture is the basis of a nation's wealth.

EXPERIMENTS IN WHEAT CULTURE.

COTTAGE FARM, SAMS' CREEK, FREDERICK CO. MD. JUNE, 1845.

To the Editor of the American Farmer

SIR—I indulge the hope that the change you propose in the *form* and price of your *venerable* publication, will not only give it a greatly extended circulation and sphere of usefulness, but that scientific and practical gentlemen in Maryland will be a little more communicative and sociable. If in giving our views since the dawn of a new era, in agricultural parlance and practice, they should happen not to be rendered in language strictly scientific, or principles be misunderstood, or misapplied, let us not be frightened or soured, but instructed and pleased by having our errors of opinion or practice freely pointed out and explained, and argued upon all occasions, to the end that just conclusions may be arrived at, all be benefitted, and a useful record left for posterity.

If your space should allow it, I desire to present the following desultory remarks on the preparation of the soil for the reception of the winter crop, &c. for the consideration of your readers, and shall be pleased to have the views of others better able to discuss and explain the principles involved.

Owing to the drought during the autumn of 1842, the crop of 1843 came forward very irregularly, and ripened in the same manner; that which had vegetated promptly, was well matured, that which vegetated later was severely injured by the rust, and that which vegetated during the winter was entirely lost. I had sown my crop a shade later than I otherwise should have done, through fear of an excessive growth during the fall, on account of the *warmth of the earth*, an offence against good husbandry I shall endeavor to avoid as far as possible in the future.

I had observed during the Fall, that the grain upon the warm exposures about the fields had vegetated more uniformly, and shewed a better growth than the surface generally, upon which it was evident much of the seed had not vegetated, notwithstanding the fineness of the weather, until the middle of November, when the weather became unusually cold for that season of the year.

My crop had been sown from the 24th Sept. to the 22d Oct. with the exception of two bushels reserved for an experiment upon the habits of a certain variety of wheat. Fine showers fell on the 18th and 22d, and on the 25th a deeply soaking rain; on the 27th, I sowed the two bushels of wheat upon rich potato ground, plowed just before the rain on the 25th. It did not vegetate until January, when it came up very beautifully, the thermometer on the 20th of that month standing at 67°. About the beginning of February it became very cold, and the ground was deeply frozen in the absence of snow—in March also the thermometer sunk to zero; my experiment failed—the wheat entirely perished, which no doubt was the fate of much if not all of that portion of the crop which came up in January.

The crop ripened from the 15th to the 25th July, some three weeks too late. The fate of the crop had certainly depended upon the circumstance of its early vegetation.

The enquiry, could any thing have been done which would have promoted the early growth of the crop? presented itself for consideration. How had each field been prepared, in what state of cultivation as to fineness and looseness, what had been manured, and in what manner, what not, when sown, &c.? were all reviewed, and the result appeared to be pretty much as follows:—*First*. The vegetation of the crop. That land which had been prepared earliest whether plowed once or twice, and had had some rain and was well settled, whether dunged or not, vegetated best, *perhaps, because it had retained most moisture, and grew best because it absorbed less of the fall rains and retained most heat*—as a clover field plowed early and not stirred, merely worked on top. *Second*—Fields that had been stirred or plowed late stood next, *perhaps because of their looseness they were more exposed to loss of moisture by evaporation during the drought, and of their heat through the same medium after the fall rains. Third*—My experiment, although entirely accidental in this connexion, served to show that there was a point of time during the fall after which the crop ceased to vegetate—and during the winter a degree of cold or other circumstances which destroyed the plant, not *before*, but after it had vegetated.

Second—The growth of the Crop. That portion of the earlier sown grain which vegetated promptly, was considerably in advance of the great bulk of the crop, the whole of which, however, did not improve as much as it was reasonable to expect prior to the commencement of cold weather. From which it would appear, that the rain on the 18th and 22d exerted great power in causing the germination of much of the grain sown previously, which I suppose was owing to the great quantity of heat then yet remaining in the soil, but considerably reduced by evaporation during and after those rains—and so far reduced by the rain of the 25th as to retard the growth of the whole crop, and entirely prevent the germination of all grain grown subsequently, as certainly was the case in the experiment, which ground being fresh plowed, gave it the greatest possible capacity to absorb water, which combining with the remaining heat, passed it off in vapor and reduced the temperature of the earth below the germinating point, from which it did not recover until the warm weather in January, when the infant plant came forth but to be destroyed by another element of destruction growing out of the great absorbent power of the loose soil—*its expansion when frozen*, which expansion would be in proportion to the quantity of water contained in the soil. The cold in November and December and in the early part of January, had not destroyed the germ—but the cold in February or March destroyed the plant. If then, the soil had been plowed early, had been well settled by rains or the use of the roller, and top dressed (the proper place I apprehend for all *fermented* manure instead of stirring in) as far as manured in the Fall, and put in with shovel plows, cultivators or harrows, *moisture* sufficient to cause the vegetation of the crop might probably have been retained—and by proper attention to top draining, so as to throw the excess of water promptly off the fields during rains after seeding, much heat might have been retained to assist the fall growth, and to prevent injurious expansions by freezing during the winter. I have conformed as nearly as I could to the above view of the subject in sowing the crops of 1844 & 45. Oat stubble well plowed immediately after removing the crop, top dressed with manure, harrowed, and left lie till the time of seeding, and put in with the cultivator, more than quadrupled the product of a land of the same field stirred for experiment in the crop of 1844. Owing to the unusual mildness of the last winter, the shade of difference in the present crop is not very great, but very perceptible.

The whole may be summed up thus:—That land to be sown in winter grains ought to be *well ploughed when in proper order, and well settled by rain or the roller*, previously to seeding, so as to diminish the absorbent power of the soil, to have the full benefit of which, particular attention ought also to be paid to top draining, so that the excess of water may pass off of the fields as promptly as possible, whereby heat would be retained to promote the fall growth and protect the plants from injurious expansions during severe weather through the winter, when not covered with snow.

The memory of every practical farmer I have no doubt will furnish data to sustain the results; if I am mistaken about the causes, I promise myself the pleasure of being corrected—and as it is an affair of "temperature" pretty much, I promise in advance to keep in the best temper. Different soils may no doubt produce somewhat different results, which gentlemen will please recollect.

The soil upon which the above conclusions were arrived at, would be about as follows:—

Silex (sand) coarse and fine, and other insoluble matter,	75.0
Alumine (clay)	4.0
Oxide of Iron,	9.0
Phosphate of Magnesia and Lime,	.5
Destructable matter at red heat,	9.0
Humus—soluble in alkali, saline and other matters,	2.5
	100.

I have thus as briefly as possible reviewed fields upon which crops (not battles, fortunately,) have been lost, that might perhaps have been won, by a better system of tactics. The subject

being second to none in importance, whether the amount of labor and expense of seeding and saving a crop is taken into view, or the influence of a good crop, or a failure, upon the whole industrial and other classes of the country, will address itself it is hoped to the consideration of farmers at least.

Yours, D. W. NAILL.

AUTUMNAL PLOUGHING—The following communication is from the pen of a gentleman whose experience in the matters upon which he treats, is probably inferior to that of none connected with the labors of agriculture; and his close observation and practical acquaintance with all the duties of the farm, renders his advice worthy of all consideration. We should be much gratified if he would continue his suggestions through the columns of the "*American Farmer.*"

Mr. Editor: On a late visit to the farm of that indefatigable friend of agriculture, Major JOHN JONES, of Wheatland, Delaware, I was struck with the precision and neatness exhibited in the culture of his crops in general, and particularly with that of his Oats, which, with the Wheat and Corn, had been put in with the Seed-Planter of Moses Pennock, the inventor of the revolving Horse-Rake, and to which it is not second in importance, the cost of the implement, $100, being paid by the first one hundred acres drilled by it. The crop of wheat on 97 acres in one field was superb; regular in its growth, and well set, it told volumes in favor of a system of liming, which had been pursued, and by which the land has been able to support a rotation which must be admitted to have been most severe—I understood, six crops in seven years.

But my business at present is with the Oat crop, which had been drilled with the precision of Onion planting, and exhibited a vigor of growth that promised well; but it is feared the present drought will diminish the prospect most deplorably; the crop, in my estimation, not having been put in soon enough by more than a month. For, after yielding full assent to the excellency of my friend's general management, and bearing testimony in favor of his system of drilling all his crops, I must be permitted to add, if the land designed for oats had been ploughed carefully last autumn, and laid well up for the winter, in sixteen turn lands, the oats being drilled upon it without a second ploughing in the spring, and as early as February, with a more liberal supply of seed, my opinion is, that double the crop might have been expected at harvest.

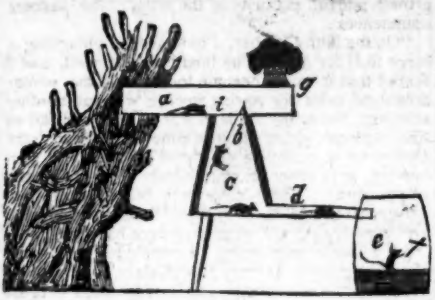
From what I have said, you will perceive that I am an advocate for autumnal ploughing; and indeed you may say so, deprecating as I do, the idea that the frequent turning and pulverizing of the soil and exposing it to the frosts of winter is injurious in any way, having long satisfied myself, that the reverse is the fact, except on very light and sandy soils, apt to wash. And in addition to my own experience, I beg to hand you the following statement, which might be relied upon, as corroborative of a practice congenial with the habits of the oat, which requires, like the wheat, a close, compact seed bed, with ample time to spread and tiller in the spring; all which is secured by a careful autumnal ploughing, as then the crop may often be put in, before the proper time has arrived for ploughing the land in the spring—an incalculable advantage in another point of view, the labor at that busy season having been expedited by an autumnal ploughing; thus adding a couple of weeks, perhaps, to the seed time, and consequently to the growth and full maturity of the crop. The account commences:

"On the 20th October, I commenced ploughing a large field for oats. The land broke up well, and I feared that it would become too flat by the winter frosts and rains for spring sowing without another stirring; but altho' the land was so light and fell so fine to pieces, yet at the seed time in February, the Oats were so completely covered by a careful harrowing, as to show the good effects of early autumnal ploughing. These oats were buried deep, and prospered beyond those I sowed the same year after two ploughings; and when they were harvested, they were indeed a great crop. I concluded, therefore, shat ploughing thus early is best, since the earth, by receiving the winter rains and frosts, retains so much moisture, as to bring all the oats away at once and together; the contrary of which is often the case in light lands sown after the plough. In the beginning of November, therefore, the next year, I ploughed up four acres of a field containing fourteen, a clover lay; and although it was clay land it broke pretty freely; and having much other business on hand at the time, I thought I would delay the breaking up the remainder of the field until January or so, supposing it would then work well by February, at the time of oat-sowing. Accordingly, at the end of January, the season being open, I ploughed the rest, and sowed the whole field with black oats the latter end of February, the whole of the land dressing well with the harrows; the four acres ploughed in November, however, was broken by the frosts to dust, the other part working mellow notwithstanding. My expectation was fully answered, for the whole field from the first gave me me great hopes of a good crop; but by the latter end of May, the four acres ploughed in Nov. were distinguishable in colour for a quarter of a mile, being stronger and of a darker color. On the 8th of June, I took a view of another field of 6 acres, which I had ploughed in the winter in the same manner, viz. four acres in October when the land was very dry, and the remaining two acres in January, the ground dry also; and this field was clover lay also. Both parts turned up very mellow, and were sown with black oats in February, and harrowed fine, only with this difference; the four acres ploughed in October worked like ashes. The result was like the former; the oats on the four acres thicker, stouter, and of a deeper green than those on the two acres. And in addition, it is to be noted, that in both fields, on those parts ploughed earliest, no grass appeared in the winter, nor in the spring, so as to prejudice the harrowing."

Those who have practised oat sowing on land carefully turned up in autumn, and without a second ploughing, have found four bushels of seed per acre not too large a quantity; the crop coming altogether and forming a regular growth, without danger of falling before ripe. The frost-stricken surface of the land affording a much finer seed-bed for clover or grass seeds, freer from weeds, and harrowing more compactly; the crop of oats always greater in quantity and better in quality, coming earlier to harvest, with heavier straw, and more valuable as fodder for stock than much common hay. D. C.

Cantwell's Bridge, Del.

We understand that fifty-one bales Nankin cotton, raised by Andrew Kerr, Esq. of Tunica county, Mississippi, was sold yesterday by the house of Ralph, King & Co., at twenty-two and a quarter cents per pound.—*N. O. Rep.*

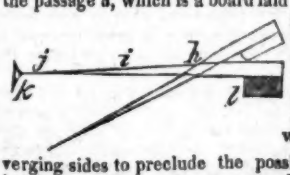


A RAT TRAP.

There are but few of the enemies of the Farmer from which he suffers more than from rats in the destruction of his grain crops, hence it is an object to avail one'sself of every plausible means of getting rid of them. And as the subjoined plan of a Trap seems to us to be well adapted to the purpose, we have had an engraving made so as the better to illustrate the contrivance. We copy from the "Prairie Farmer":

Above is the representation of a mode which we believe more perfect than any in existence. The plan is given in Loudon, though we have simplified the cut. The advantages of this mode are, that it is always ready—obviating all necessity of visiting that part of it frequented by rats, and which in the use of traps soon renders them shy and suspicious. The animal is taken out of the trap at another place, away from the one where he gets in; and this place is so distant that his drowning creates no alarm to the others. As many can be taken as come that way. The mode was found so effectual by its inventor, that he turned rats loose, marked, on a wager that he would retake them—which he did in a few days after. In fact, the sagacity of the animal is no security against this trap.

The mode of putting it in operation is to select some out-house, not in use, which can be locked against children and others, who would be liable to cause disturbance. A pile of old logs and limbs is made, forming a road and harbor for them leading to the passage *a*, which is a board laid flat horizontally, in the middle of which is the fall *i*, which gives way under them as indicated at *b*. *c* Is a box made with smooth converging sides to preclude the possibility of climbing out. *d* Is a passage way, leading some out of the building in which the box *c* and the pile of logs are. The partition should be at *d*, but is not shown in the cut. *e* Is a barrel or larger cask containing some water, with a small shelf made to turn under a small weight, as indicated in the cut. Just above this shelf is a small hole in the side of the cask to encourage the rat to jump from the end of the passage way, *d*. The cask is sunk partly in the earth.



The plan is to make the place as inviting to rats as possible, by strewing straw and an occasional wheat-sheaf about the trap, and to get them thoroughly baited before trying to catch them. This is an important consideration. For this purpose the falling floor, *i*, turning on the pivot at *h*, should be so constructed that they will be obliged to cross it to get at the bait, and should be fastened until they become thoroughly accustomed to it. The bait ought not to be put upon it, but strewn carelessly about and beyond it, as shown by the wheat-sheaf, *g*. Upon the right construction of this falling floor depends mainly the success of the plan. It is made with a weight, *l*, sufficient to bring it at once to its level after having been thrown open, as indicated by the dotted line. At the end it rests partly on a sort of knob, so as to be rank enough to bear some weight; for a rat always tries any suspicious place with his fore feet, like a cat; but when he adventures himself upon it, it must give way under him. The rat thus precipitated to the bottom of the box, *c*, follows the passage *d* to the cask *e*; and observing a shelf with a little light on the opposite side of the cask, leaps on to it, and is dropped at once into the water. Meantime the falling floor has returned to its place, ready for another. No alarm is created, and the farmer has only to go to the cask outside the building and take out the dead rats daily. The trap itself, or the falling floor, may be about three or four inches wide, and twelve or fifteen inches long. The whole operation, if the trap is well made, is silent and sure.

Particular care should be used to handle every thing as little as possible, and to scent every thing handled, with something. Oil of caraway seed is used in England, and can be obtained here for 37½ cts. an ounce. Light colored malt, scented with oil of caraway is the best bait perhaps that can be used.

RYE, TALL AND SHORT.

Mr. Editor—All our farmers ought to know that the kind soil of Maryland is still capable of being easily improved so as to yield abundantly the necessaries of human life and pleasure. The large sample of rye which I send you was sown about the first of last September, say half a bushel to the acre, to test its capacity for branching in rich ground, which appears to be very great, as there are thousands of similar bunches in the field from whence that bunch was extracted, and each bunch is the product of one single seed, yielding thousands. The next smaller sample was sown thick about the 10th of last Oct. and was mowed off close to the ground on the 23d of last April, when it was all out in head and 3 to 4 feet high, yielding a large crop of good hay. It then sprouted from the roots again, and that is the second growth which has so far matured in about 60 days—it ought to have been sowed on the 1st of Sept. and the hay crop taken off by the middle of April, then the second would be perfect by the first of July. The smallest sample was derived from a handful of rye sown as thick as the grains could lie side by side in the same field, and at the same time that the second sample was sown. The result was that they were too thick to thrive, hence they yielded nothing worth saving. The products of our soil are improved as much in quality as in quantity by good cultivation and good ground. Agriculture is the most important business in the world, and yet no business appears to be less understood or more neglected. THOMAS.

The above, from an old and experienced farmer near Ellicott's Mills, was accompanied by the three specimens of Rye alluded to, and while the first is truly "*tall Rye*," (nearly 7 feet) well filled, the smallest (about 2½ ft.) looks more like *chess* than any thing we have seen for many years, not to be that pest of the wheat field—the second specimen is about 5 feet.

LADIES' DEPARTMENT.

[Extract from Colman's Agricultural Tour.]

PENCIL SKETCHES.

I must claim the indulgence of my readers, if I give them a sketch of a visit in the country so instructive, so bright, so cheerful, that nothing but the absolute breaking up of the mind can ever obliterate its record, or dispel the bright vision from my imagination. I know my fair readers—for with such I am assured my humble Reports are kindly honored—will feel an interest in it; and if I have any unfair readers, I beg them at once to turn over the page. But mind, I shall utter no name, and point to no place; and if I did not know that the example was not altogether singular, and therefore would not be detected, I should not relate it. I know very well, as soon as I return to my native land, if Heaven has that happiness yet in store for me, a dozen of my charming friends,—God bless them!—with their bright eyes, and their gentle entreaties, will be pressing me for a disclosure; but I tell them beforehand, I am panoplied in a stern philosophy, and shall remain immovable.

I had no sooner, then, entered the house, where my visit had been expected, than I was met with an unaffected cordiality which at once made me at home. In the midst of gilded halls and liveried servants, of dazzling lamps, and glittering mirrors, redoubling the highest triumphs of art and taste; in the midst of books, and statues, and all the elegancies and refinements of luxury; in the midst of titles, and dignities, and ranks, allied to regal grandeur,—there was one object which transcended and eclipsed them all, and showed how much the nobility of character surpassed the nobility of rank, the beauty of refined and simple manners all the adornments of art, and the scintillations of the soul, beaming from the eyes, the purest gems that ever glittered in a princely diadem. In person, in education and improvement, in quickness of perception, in facility and elegance of expression, in accomplishments and taste, in frankness and gentleness of manners, tempered by a modesty which courted confidence and inspired respect, and in a high moral tone and sentiment, which, like a bright halo, seemed to encircle the whole person,—I confess the fictions of poetry became substantial; and the *beau ideal* of my youthful imagination was realized.

But who was the person I have described? A mere statue, to adorn a gallery of sculpture? a bird of paradise, to be kept in a glass case? a mere doll, with painted cheeks, to be dressed and undressed with childish fondness? a mere human toy, to languish over a romance, or figure in a quadrille? Far otherwise: she was a woman in all the noble attributes which should dignify that name; a wife, a mother, a housekeeper, a farmer, a gardener, a dairy woman, a kind neighbor, a benefactor to the poor, a Christian woman, 'full of good works, and alms-deeds which she did.'

In the morning, I first met her at prayers; for to the honour of England, there is scarcely a family, among the hundreds whose hospitality I have shared, where the duties of the day are not preceded by the services of family worship; and the master and the servant, the parent and the child, the teacher and the taught, the friend and the stranger, come together to recognize and strengthen the sense of their common equality in the presence of their common Father, and to acknowledge their equal dependence upon his care and mercy. She was then kind enough to tell me, after her morning arrangements, she claimed me for the day. She first showed me her children, whom, like a Roman mother, she deemed her brightest jewels, and arranged their studies and occupations for the day. She then took me two or three miles on foot to visit a sick neighbor, and, while performing this act of kindness, left me to visit some of the cottages upon the estate, whose inmates I found loud in the praises of her kindness and benefactions. Our next excursion was to see some of the finest, and largest, and most aged trees in the park, the size of which was truly magnificent; and I sympathized in the veneration which she expressed for them, which was like that with which one recalls the illustrious memory of a remote progenitor. Our next visit was to the greenhouses and the gardens; and she explained to me the mode adopted there of managing the most delicate plants, and of cultivating, in the most economical and successful manner, the fruits of a warmer region. From the garden we proceeded to the cultivated fields; and she informed me of the system of husbandry pursued on the estate, the rotation of crops, the management and application of manures, the amount of seed sown, the ordinary yield, and the appropriation of the produce, with a perspicuous detail of the expenses and results. She then undertook to show me the yards and offices, the byres, the feeding stalls, the plans for saving, and increasing and managing, the manure, the cattle for feeding, for breeding, for raising the milking stock, the piggery, the poultry yard, the stables, the harness-rooms, the implement-rooms, the dairy. She explained to me the process of making the different kinds of cheese, and the general management of the milk, and the mode of feeding the stock; and then, conducting me into the bailiff's house, she exhibited to me the Farm Journal, and the whole systematic mode of keeping the accounts and making the returns, with which she seemed as familiar as if they were the accounts of her own wardrobe.—This did not finish our grand tour; for, on my return, she admitted me into her boudoir, and showed me the secrets of her own admirable housewifery, in the exact accounts which she kept of every thing connected with the dairy and the market, the table, the drawing-room, and the servants' hall. All this was done with a frankness which showed an absence of all consciousness of any extraordinary merit in her own deportment, and which evidently sprang solely from a kind desire to gratify a curiosity on my part, which, I hope, under such circumstances, was not unreasonable. A short hour after this brought us into another relation; for the dinner bell summoned us, and this same lady was found presiding over a brilliant circle of the highest rank and fashion, with an ease, elegance, wit, intelligence, and good humour, with a kind attention to every one's wants, and an unaffected concern for every one's comfort, which would lead one to suppose that this was her only and her peculiar sphere. Now, I will not say how many mud-puddles we had waded through, and how many dung-heaps we had crossed, and what places we explored, and how every farming topic was discussed; but I will say, that she pursued her object without any of that fastidiousness and affected delicacy which pass with some persons for refinement, but which in many cases indicate a weak if not a corrupt mind. The mind which is occupied with concerns and subjects that are worthy to occupy it, thinks very little of accessaries which are of no importance. I will say, to the credit of English women,—I speak, of course, of the upper classes,—that it seems impossible that there should exist a more delicate sense of propriety than is found universally among them; and yet you will perceive at once that their good sense

teaches them that true delicacy is much more an element of the mind, in the person who speaks or observes, than an attribute of the subject which is spoken about or observed. A friend told me that Canova assured them that, in modelling the wonderful statue of the Three Graces, from real life, he never was at any time conscious of an improper emotion or thought, and if any man can look at this splendid production, this affecting embodiment of a genius almost creative and divine, with any other emotion than that of the most profound and respectful admiration, he may well tremble for the utter corruption within him, of that moral nature which God designed should elevate him above the brute creation.

Life in the Country.—Now, I do not say that the lady to whom I have referred was herself manager of the farm; that rested entirely with her husband; but I have intended simply to show how grateful and gratifying to him must have been the lively interest and sympathy which she took in concerns which necessarily so much engaged his time and attention; and how the country could be divested of that dullness and *ennui*, so often complained of as inseparable from it, when a cordial and practical interest is taken in the concerns which necessarily belong to rural life. I meant also to show—as this and many other examples which have come under my observation emphatically do show—that an interest in, and a familiarity with, even the most humble occupations of agricultural life, are not inconsistent with the highest refinements of taste, the most improved cultivation of the mind, and elegence, and dignity of manners, unsurpassed in the highest circles of society.

To live in the country, and enjoy all its pleasures, we should love the country. To love the country is to take an interest in all that belongs to the country—its occupations, its sports, its culture, and its improvements, its fields and its forests, its trees and its rocks, its valleys and hills, its lakes and rivers; to gather the flocks around us, and to feed them with our own hands; to make the birds our friends, and to call them all by their names; to wear a chaplet of roses as if they were a princely diadem; to rove over the verdant fields with a higher pleasure than we should tread the carpeted halls of regal courts; to inhale the fresh air of the morning as if it were the sweet breath of infancy; to brush the dew from the glittering fields as if our path were strewed with diamonds; to hold converse with the trees of the forest, in their youth and in their decay, as if they could tell us the history of their own times, and as if the gnarled bark of the aged among them were all written over with the record of bygone days, of those who planted them, and those who early gathered their fruits; to find hope and joy bursting like a flood upon our hearts, as the darting rays of light gently break upon the eastern horizon; to see the descending sun robing himself in burnished clouds, as if these were the gathering glories of the divine throne; to find in the clear evening of winter our chambers studded with countless gems of living light; to feel that 'we are never less alone;' to make even the stillness and solitude of the country eloquent; and above all the beauty of every object which presents itself to our senses, and in the unbought provision which sustains, and comforts, and fills with joy, the countless multitudes of living existences which people the land, the water, the air, every where to repletion, to see the radiant tokens of an infinite and inexhaustible beneficence, as they roll by us and around us in one ceaseless flood; and in a clear bright day of summer, to stand out in the midst of this resplendent creation, circled by an horizon which continually retreats from our advances, holding its distance undiminished, and with the broad and deep blue arches of heaven over us, whose depths no human imagination can fathom; to perceive this glorious temple all instinct with the presence of the Divinity, and to feel, amidst all this, the brain growing dizzy with wonder, and the heart swelling with an adoration and a holy joy, absolutely incapable of utterance;—this it is to love the country, and to make it, not the home of the person only, but of the soul.

"GO FORTH INTO THE COUNTRY."

(From Poetical Remains of the late Mrs. James Gray, in the Dublin University Magazine.)

Go forth into the country,
From a world of care and guile;
Go forth to the untainted air,
And the sunshine's open smile.
It shall clear thy clouded brow—
It shall loose the worldly coil
That binds thy heart too closely up,
Thou man of care and toil!

Go forth into the country,
Where gladsome sights and sounds
Makes the heart's pulses thrill and leap
With fresher, quicker bounds.
They shall wake fresh life within
The mind's enchanted bower;
Go, student of the midnight lamp,
And try their magic power!

Go forth into the country,
With its songs of happy birds,
Its fertile vales, its grassy hills,
Alive with flocks and herds.
Against the power of sadness
Is its magic all arrayed—
Go forth, and dream no idle dreams,
Oh, visionary maid!

Go forth into the country,
Where the nut's rich clusters grow,
Where the strawberry nestles 'mid the furze,
And the holly-berries glow.
Each season hath its treasures,
Like thee all free and wild—
Who would keep thee from the country,
Thou happy, artless child?

Go forth into the country,
It hath many a solemn grove,
And many an altar on its hills,
Sacred to peace and love.
And whilst with grateful fervor
Thine eyes its glories scan,
Worship the God who made it all,
Oh! holy Christian man!

Labors of a Locomotive.—Hon. Wm. Jackson, one of the most practical rail road men in Massachusetts, has given some statistics of the labor of a locomotive on the Western rail road, which are interesting. Trains of cars leave Boston and Albany every morning, each train carrying 100 tons of merchandize, running at an average rate of 12 miles an hour, or 100 miles a day including stoppages. A horse would carry 1200 lbs., over the mountains 25 miles per day. Divide the load of this one Engine by 1,200 and the number of horses for 25 miles in a day is 167. Four times this number, or 668 could carry this load 100 miles each day. Hence the iron horse is every day, fair or foul, doing the work of 668 horses.

MODE OF CULTIVATING TOBACCO IN THE ISLAND OF CUBA.

Your nurseries are the first to be attended to, in your preparation for a crop, by selecting at the proper season a rich and tolerably moist piece of new ground, and prepare it by burning it off very clean, and breaking it up. The seed is then to be sown broadcast upon it, and when they are up, they are to be overlooked daily, to see that the cut-worm does not commit ravages among the young plants; and as fast as the plants arrive at a proper size, they are to be transferred to the Tobacco field, to make room for the smaller plants of the nursery. As casualties frequently arise to destroy some of the nurseries, it is necessary to guard against a probability of not having a sufficient number of plants, by making three or four nurseries, at an interval of one or two weeks each. Much attention should be observed to keep both your nurseries and fields very clean, particularly of grass, and for that reason new lands are preferred for both. In Cuba, they plant on an even surface, and disturb it as little as possible with the hoe, only picking out the grass or weed which spring up. The plants, when transferred to the field, are to be planted in squares, at about from two to three feet apart, according to the strength of the land. The high lands in Cuba are such as produce the quality of Tobacco, both as to strength and color, that suits the American market best, and such lands correspond nearest to our high hammocks. The greatest enemy to the plants, both in the nursery and in the fields, (while small,) is the cut-worm, which has to be looked after early every morning, and wherever they have eaten the plants, they are to be found and killed, either on the plant or on the ground near it. When the plants get to be larger, then the large green Tobacco-worm is to be constantly guarded against, and the suckers also continually broken off as fast as they appear, and when the Tobacco is judged to be of a sufficient height, it is to be topped and allowed to mature for cutting The time of maturity is ascertained by the leaves changing gradually their color, beginning at the bottom leaves, from their deep green growing color, to a yellowish green; but if this is not sufficiently obvious, and you deem your Tobacco ripe, you may test it by crushing together the tip of any of the upper leaves, which, if it snaps, is a sign of its being ripe; but on the contrary, if it does not snap, it is not fully matured. When ripe for the knife, it is cut down near the ground, leaving two suckers, which have been spared a week or two prior, ready to grow up and produce a second crop, and also a third crop may be realized in the same manner. The Tobacco is to be conveyed carefully in wide thongs of cowhide to the house, to be hung up; a shed is preferred, with free space for ventilation beneath, and after tying the plants together, two to each string, and leaving space enough between them to insert a wooden peg, you hang them up, by intruding them above each rafter up to the ridge of the house, being careful not to hang them so near that they will touch or crowd each other in drying, or your Tobacco will mould. Also when the weather is moist, you must make small fires enough under it, to keep out the moisture, but not enough to heat your Tobacco. When the leaves are perfectly dry, the whole are to be taken down, and placed in a press for a few hours, the object of which is, if the Tobacco is too dry to strip off without breaking the leaves, that they may become soft and pliable, but great care must be taken that it does not heat, and it must be strictly examined, by inserting the hand to ascertain that it becomes not too hot. The press is made by putting rails or poles crosswise of each other, in form of a rack, and placing cow-hides under, over and around the Tobacco, and placing upon it something somewhat weighty. It is then to be stripped leaf by leaf from the stock, and being selected, the wrappers from the fillers, to be tied at the butts, and prepared for market. It is sometimes usual to put it again in press after being stripped.—*Floridian.*

MILKING COWS.—The owners of cows should pay particular attention to milking. Children should not be trusted with this business, and there are many grown people who never milk well, though they have been brought up to the business.

If you would obtain all the milk from the cow, you must treat her with the utmost gentleness; she must not stand trembling under your blows nor under your threats. Soon after the bag has been brushed by your hand, and the ends of the teats have been moistened a little with milk, it flows in rapidly, and all the veins or ducts near the teats are completely filled. Then it must be drawn out immediately, or you will not get the whole. You must not sit and talk—you must not delay one moment, if you would have all the cow is then ready to yield.

The udder should be moved in every direction at the close of milking, and the hands may beat it a little, in imitation of the beating which the calf gives it when sucking. An expert milker will make the cow give one-quarter more in butter, than a majority of grown milkers will.

One season, says an experienced writer, we kept four cows in the home lot: there was but little difference in the quantity of milk given by each. We had a *very steady* hired man, of forty years of age; he had carried on a farm in New Hampshire, and had always been used to milking; but he was so slow the cows had no patience with him.

We milked two of the cows, and he the other two, and we were but little more than half as long as he in milking, though we got the largest mess by about one quart. On our remonstrating that he did not draw out all the milk, he said his cows would not yield so much as those milked by us. We then made an exchange: he milked our two, and we milked his. In three weeks time the case was reversed: our mess exceeded his by nearly one quart. He never failed to strip his cows to the last drop; but his *intolerable moderation* prevented his obtaining what an active milker would have done.

Young learners may practice on cows that are soon to be dried off. They should be taught, *at first*, how to take hold of the teats, and they will remember it; but how common it is to let each child choose his own mode of milking. Learners should know that the hand should be kept very near the extremity of the teat, if they would milk with ease. The left arm should always press gently against the leg of the cow; for then if she is inclined to kick, she cannot, with any force; she cannot *strike* an object that leans against her; but if she raises up her foot, as she often will when her teats are sore, the milker will be ready to ward off and keep it from the pail, much better than when he sits far off from the cow.

If heifers are made tame and gentle by frequent handling when young, they are not apt to kick the milker. But if they are suffered to run wild till after they have calved, they cannot be expected to be gentle when you first attempt to milk them; they often acquire bad habits, and are not broken of them through life.—*Emigrant's Hand-Book.*

ARTICHOKES FOR HOGS—SOUTHERN POLICY—The Artichoke is one of the most prolific of roots, and can be grown to great advantage as feed for hogs. If an acre of low, rich, moist ground, be planted with it, 3 by 2 feet apart, and tended as corn is, a thousand bushels may be grown thereon, and as to the digging and feeding, the hogs will do that for themselves, if turned into the lot in the fall, and thus save the labor of gathering. They are fully as nutricious as potatoes, thrice as productive—and, we believe, when once planted, will seed the lot of themselves for many successive years.

There are thousands of acres in the South, which do not now bring their owners a groat a year, that might be converted into *Artichoke autumnal pastures for hogs*, and we especially commend our Southern friends to look to it. The subject is eminently worthy of their consideration. By fencing in a few acres of such land on each plantation, planting it in artichokes, and turning the hogs in as soon as the seed is ripe in the fall, a plentiful supply of the very best food may be secured to bring them fat to the pens, so that they would only require a sufficiency of corn to *harden the flesh*. Such a course of *provident economy, would enable Southern planters to raise their own bacon*, and save to the State in which it might be pursued, thousands and tens of thousands of dollars annually, that are now sent out of it to purchase pork. We say to our Southern brethren, *buy nothing that you can profitably produce yourselves*, extend your *system* of culture; be sure to let that system embrace every thing which enters into the consumption of the plantation, whether it be for the back, or the stomach, and a healthful condition of affairs will inevitably be the consequent result. Enlightened economy, state, and personal pride, all concur in indicating, that no farmer, or planter, should go abroad for supplies of the necessaries and comforts of life, so long as he possesses the ability to produce them himself; for every dollar sent out of a state under such circumstances, is a reckless waste of means, as the necessary consequence is, that, to the amount of its value, it tends to *impoverish* its producer, and *enrich* a third party, who had no agency in its production, and who, from the remoteness of his local position, has no identity of interest in, or affinity of feeling with, the people whom he has rendered tributary to his enrichment.

THE CHESTER HOG—A few weeks ago we stept into the cars on the Balt. & Susq. rail road, for the purpose of paying a visit to our respected friend, WM. JESSUP, Esq. whose beautiful and highly cultivated estate is situated near Cockeysville, Baltimore co in one of the most fertile valleys of our State. We had a double object in our trip: to fulfil a promise of long standing to visit the hospitable homestead of our friend, and also to see some rare specimens of the Chester county breed of hogs, which we had learnt Mr. J. had been fortunate enough to secure in a visit to Pennsylvania, made with that express object in view. Mr. Jessup's judgment in any matter connected with the management and stocking of a farm, is surpassed by that of very few in Maryland; and the order and system, the elegance, comfort and happiness which was every where evinced, most clearly proved that a master mind in the profession guided the affairs of his estate. Mr. Jessup, with Messrs. Gorsuch, were among the first in Baltimore county, to introduce the Berkshires, having in person selected at the North, some of the most superior specimens of the breed; and we found by their progeny, which were not few in his pens, that here at least, under his skilful management, there was no deterioration in their size and beautiful proportions. The Berkshire is still a decided favorite with Mr. Jessup, and he intends continuing their breed; but the superiority of the Chester for some of the most important qualities, such as aptitude to fatten, early maturity, and the perfection of beauty, gives them in his estimation, a decided preference over any other breed—and we must acknowledge that, partial as we have ever been towards the Berkshires, we could not but admit that our eyes had never beheld such symmetry as was presented to their vision in these "pets" of our friend; they were the very "beaus ideal" of what hogs should be. One of the sows had a litter by her side, which were worthy of their progenitors; they had been engaged before their littering, but unfortunately there was but a single sow pig in the lot. Mr. J's. stock, purchased at a very high figure, comprises two boars and two sows, and he will probably be able to supply a few pairs in the fall to those desirous of obtaining the breed.

We noticed in the barn-yard of Mr. Jessup, one of the handsomest young bulls we ever beheld; he is of the Ayrshire breed, a present from the splendid herd of John Ridgely, esq. of Hampton. He is as finely proportioned an animal as we have ever seen, but the great difficulty is to keep him down in flesh.

NEW COTTON PRESS—The N. Orleans Courier contains a notice of a valuable invention by Mr. Tyler, coiner of the U. S. Mint in that city, of a Cotton Press, on a new principle, which it is thought must inevitably take the place of all other cotton presses now in use. The machinery is represented as simple and strong, and the expense of erecting it considerably less than that of other presses, occupies much less room, and will last "till time grows old"—The experiment made was decidedly successful, and the proprietors of the principal pressing yards in N. Orleans have determined to abandon the old plan and adopt that of Mr. Tyler. The Courier remarks upon its swiftness of operation and its power—

1. It has pressed 10 bales of cotton in 8 minutes.

2. We saw several bales which had gone through an ordinary press, brought under Mr. Tyler's machine; when repressed and tied, they were at least 25 per cent. smaller than they were before.

Mr. Tyler has also made important improvements in the process of tying the ropes round the cotton after it is pressed.

THE BEE MOTH.—The bee-moth in most parts of the United States is very destructive to bees, while in other sections it is not known. It is supposed to be imported from Europe with bees. This moth in its perfect state resembles some of the varities of millers that are often flying into a light on a warm summer evening. It is usually less than three-fourths of an inch in length.

The female is larger than the male. They lay their eggs from the latter part of April to the close of August. In the evening they are active and lay their eggs; and in day lie quiet in cracks and crevices of the hive and bee-house. If a hive be not well guarded they will enter it and deposite their eggs in joints or cracks of the hive, where the young on being hatched finds a supply of wax which is its natural food. When the moth cannot gain access to the inside, she lays her eggs on the outside in the cracks or joints, and when the worm is hatched he eats his way through wax, or under the edge of the hive to the inside, and there he takes up his residence, and lives on the comb.—He throws around him a web, or silken tube, which protects him from the bees, and he moves about among the comb, carrying destruction in his course, filling the hive with webs and filth.

The bees become discouraged from the constant encroachments of an enemy against whom they have no means of defence. These worms or caterpillars in about twenty days from hatching attain their full size, which is about an inch in length. Then like the silk worm they spin their silken cocoon. They then change to the chrysalis state, and in a few weeks come forth in the perfect or final state, as moths or millers. Those which come out late, remain in the hive in the chrysalis state during the winter, and come forth perfect animals in the spring.

Remedies.—Various are the remedies and the modes of protection that have been offered; but few of which, if any, have proved effectual against this most formidable enemy of a useful insect, a gatherer of the sweet produce of nature for the use of man. The only animal as we lately observed, that furnishes itself with its own sustenance, and some to spare for our benefit. It well deserves every means that we can devise for its protection.

Many hives have been invented and patented, claiming to protect bees against the moth, but they generally fail. We have used as a preventive common whitewash of lime, with plenty of fine salt in it. Early in the spring we put this on the bottom board, after cleansing it, and on the lower edge of the hive, and on the inside of the hive up to the comb. It should be used occasionally in the summer, and plentifully too on the lower edge of the hive and on the board.—This is grateful to the bees, and conducive to their health; it is a remedy for diseases, particularly for diarrhea. We have never been troubled with the moth, which we have attributed to the free use of the whitewash, for in this case the young worms are supplied with salt and lime, instead of wax for food.

A gentleman who paid much attention to bees said that he prevented the depredations of the moth by making a small channel in the board just inside the door, filling it with fine salt, and then filling up the interstices with liquor from the *blue pot*, which term will be understood by old farmers. He said this was pleasant to the bees, and no miller would cross it.

Moths are often caught by hundreds in the evening, by setting around the hives sweetened vinegar in white dishes. Honey and water, made weak, is also recommended for this purpose. It is stated in a Western paper that an apiarian has used whey for this purpose, for three years, with excellent success. These dishes should be used during the active season of the bees, and placed at nightfall, and removed or covered, early in the morning.

If any of our readers know of a good protection against the bee moth, we should be pleased to hear from them.—*Boston Cultivator.*

MATURATION OF WHEAT, BARLEY AND OATS—A writer in the *Gardener's Chronicle*, edited by Professor Lindley, London, says—

"It is a remarkable fact, that the further North *Grain* can be made to grow, the shorter is the period of time in which it comes to maturity: it has also been observed, that when it is grown in the extreme North, when used as seed in a Southern country, gives its first produce more speedily, ripening in a much shorter time, although at a second sowing it loses its quality."

We coincide with the writer as to the fact, that grain grown far north, matures earlier than that grown in a southern country; but we do not view it as being *remarkable*, as there is no fact better established in vegetable physiology, than that in proportion to the shortness of the season where grain may be grown, so does it accommodate itself to the necessity of the climate. Nor is this faculty of accommodation confined to the small grain family. Take the seed of the Dutton corn, which may have been raised in the North, or East, plant it in the South, and its first crop will be from 87 to 90 days in ripening; plant the product of that crop, and it will be from 8 to 10 days later in coming to maturity, and by continuing to plant the product of each succeeding year, for a series of years, it will be found that the period of maturing will be so far prolonged, as almost to lose its characteristic trait of earliness. We say this from a long experience devoted to its culture.

THE AMERICAN AGRICULTURIST ALMANAC FOR 1846.—A. B. Allen, Esq., editor of the American Agriculturist, has issued his Almanac for 1846, and a capital one it is. Besides the usual astronomical calculations it contains a condensed statement, from Ellsworth's Report, of the estimated agricultural products of the United States for 1844; brief notices of the work on a farm for the several months in the year, sketches of farm cottages, a cut representing the farm buildings recently erected by L. F. Allen, Esq., of Black Rock, New York, consisting of a dwelling house, wash room, wood house, work shop, wagon, cart and sleigh house, barn and stables. The cost of the dwelling complete and painted, aside from the wash room and wood house, was about $800, including them, $1000. The whole group of buildings cost about $1500; together with various other cuts representing things interesting to farmers. This Almanac is worthy of patronage, and we trust the enterprising author will be well paid for his trouble, for he deserves it.

☞The farmers of Caroline co. Md. held a meeting at Denton, on the 17th June, and took the preliminary steps for the formation of an agricultural society. An adjourned meeting is to be held 29th July.

THE CROPS.

We have been for several weeks carefully watching the prospects of the crops, and shall now endeavor to compress, in as brief a space as possible, the impressions which have been made upon our minds with regard to them.

In *Ohio*, in fully two thirds of the state, we believe that not more than half a crop of either grain or grass will be made—that part known as the Sciota valley will we think yield pretty fair average crops. The Wheat crop of the entire state, taken as a whole, will be a failure; so also will be the Wheat crop of *Indiana*. In *Kentucky*, though parts of the state have suffered severely, we think, upon the whole that the crops will be fair average ones. Of the remaining states of the great West and South west, we apprehend the crops will be such as will prove remunerating. In *Maryland* and *Virginia*, though disasters of the field have occurred, to blight the prospects of particular regions, we entertain the belief that the wheat crops, will on the whole, prove more than fair average ones. The Oat crop in both states will be short. Of the Corn crop it is too soon yet to speak with certainty. In its first stages, it greatly suffered by drought, and in some places also by frost, but the refreshing rains of June have caused a decided improvement, and it now, generally speaking, looks well, with a prospect for a fair average crop. The Hay crop is decidedly short; the drought the latter part of April, and first of June, parched up the meadows, and a third of a crop has scarcely been realized. In *North Carolina* the drought has been distressing and long continued, and we dread to dwell upon the dire effects to the crops in that brave old state; at the last advises, in some sections of it, the streams and wells were dried up, and cattle had to be driven many miles to water—in several instances, grist had to be sent 40 and 50 miles to be ground.

The Tobacco plants severely suffered by the frosts and drought, but the very favorable weather which the planters have enjoyed since the middle of June, will, we trust, have caused a decided improvement in their prospects of a crop of this great staple of Maryland and Virginia.

In *South Carolina*, drought and cold, have in a large portion of the state, wrought the most disastrous consequences, and it is but a fair conclusion, that the crops of all kinds will prove lamentably short.

In *Alabama* and *Georgia*, though not to the same extent, the same causes have operated adversely, and will doubtless greatly curtail products.

In *Louisiana* and Mississippi, vegetation has suffered from similar causes, though we believe not to the same extent.

In *Pennsylvania*, *New Jersey*, *New York* and the *New England States*, the crops have suffered less, and we do not apprehend that there are any fears in those sections of the country, but that the products of the earth will be fair average ones.

BALTIMORE MARKET.—June 30.

[We shall under this head give a brief summary of the state of the market for articles in which the farmers and planters are more particularly interested—Our review is made up from the ample reports of the AMERICAN.]

WHEAT—Sales of RED for the month have ranged from 80a 94c.—New Va. not free from garlic, sold last week at 86, and a lot of new Md. at 92c. A sale of old Pa. white and red mixed was effected at 92c. The first lot of the new crop reached here 18th inst. (the MAY wheat) from Talbot co. Md. and being of excellent quality, brought 95c.—another lot, received next day, sold at 92c.—These prices, it will be seen by the sales of the last week, have not been maintained.

CORN—WHITE has ranged very generally for the month at 37a39c. until the latter end of last week, when an improvement was evinced, and sales were made at 40a41c.—YELLOW maintained a pretty firm stand at 39a40c. until Friday last, when it also advanced and brought 41a42c.

RYE—Pa. has been firm at 57a59c.; sales at latter, last week.

OATS—Md. 30c. last sales; good parcels Md. or Pa. would bring 30a32—this is an advance on prices earlier in the month.

HEMP—Water rotted Ky. 7c. per lb.; dew rotted 4a4 1-2—a lot of Manilla sold during the month at 6 3-4c. per lb.

TOBACCO—The receipts for the month have been large, tho' a falling off took place last week, in consequence of the planters being busy with harvest and in setting out their plants—Considerable sales have been made, principally of good and finer sorts, which are firm at our quotations—The inferior and common qualities have been generally dull, tho' a slight improvement in the demand was evinced about middle of the month—We quote for MARYLAND, infer. and com. $2a3; mid. to good 3. 50a5; good $6a7.50, and fine $8a14. The finer qualities OHIO have been much sought after, but inferior kinds have been dull—we quote com. to mid. $3a4.50; good 5a8; fine red and wrappery 6.50a10; fine yellow 7.50, and ex. wrap. $11a13. The inspections of the last four weeks are as follows: Maryland 4871 hhds.; Ohio 3684; Kentucky 103; Virginia 15—Total 8672 hhds.

WOOL—Sales of tub washed during the week at 27a30c.—for full blood and extra fine fleece, last sales at 35a40c.

COUPONS, or Md. interest Certificates, to pay taxes, 78a80.

COFFEE—Rio, 1000 bags sold at 7a7 3-4c.

FISH—Small sales Shad No. 1, at $7.50; Herrings $3.50 bbl.

PROVISIONS—The sales of Beef and Pork have been quite animated in the last week, and extensive sales made—Balt. mess Pork $13.25a13.50; prime 10.50a11. Mess Beef 10.50a11; No. 1, 9a9.50, and prime 7a7.50—50 bbls. extra mess Pork $14. Bacon: Western shoulders 6a6 1-4; sides 7a7 1-4; asso'd 7a7 1-4; Balt. cured Bacon, shoulders 6 1-2a6 3-4; sides 7 1-2; hams 9a 10. Lard, No. 1 West. 8a8 1-2c. in kegs; 7 1-4a8 in bbls.

FLOUR—HOWARD ST. from cars $4.25—sales last week of 1800 bbls. at $4.37; 400 mixed brands 4.43; 150 at 4.50; and 400 at 4.18; principal sales were old and re-inspected. CITY MILLS $4.44 for 500 bls. fresh ground; stock small. SUSQUEHANNA 4. 37a$4.50—RYE, Pa. $2.44a3. Inspection for 4 weeks 30,809 bls.

MOLASSES—Cuba 23 1-2a25c; P. Rico 27 7-8; N. Orl. 32 1-2c.

PLASTER—Sales at $2.75 per ton.

COTTON—1000 bs. Up. 5 1-2a7; 200 Lou. & 200 Mo. 7 1-4a7 1-2.

BEEF CATTLE—314 head sold last week to butchers at $2a 3 per 100lb. equal to $3.50a5.75 next, the highest rates were of extra qual.—the sales averaged $3.50. HOGS, live, sales $4.50 a4.75 on the 24th, but on the 27th, 4.87 to $5, were obtained—4. 75 is a fair average for the month. RICE—good, $4 pr 100 lbs. SUGAR—P. Ric. $6.25a7.05, firm; N. Or. com. 5.75, fair 6a6.50.

AGRICULTURAL.——The subscriber offers his services to agriculturalists, to visit farms by the single visit or by the year, for the purpose of examining the location, analyzing the soil, and giving directions for sowing the different kinds of compost, and their applications to the soil and grains.

The subscriber will furnish Guano, Poudrette, Plaster of Paris, and with all other kinds of salts for farming compost, with directions for their use. ☞Orders left at Messrs. Wisong & Kettlewell's, Druggists, Chesapside, Baltimore, will be attended to. July. W. BEAR, Agricultural Chemist.

ROB ROY, A VERY FINE BULL FOR SALE—Rob Roy is six years old. His grand dam was Sidney, out of a Holstein cow by Champion, imported by John S. Skinner, esq. Sidney was an extraordinary milker, (having given 32 quarts a day—his dam was Blanche, out of Sidney, by a Durham bull belonging to Lloyd Rodgers, esq. Rob Roy was got by Llewellan, a celebrated Durham bull of Mr. Mankin's. The proprietor has several bulls, and will sell Rob Roy at a moderate price if immediately applied for. Apply at this office. July.

LIME—LIME——The subscriber is prepared to furnish from his depot at the City Block, Baltimore, ALUM STONE LIME of the purest description, deliverable at any point on the Chesapeake Bay or its tributaries, at such prices as cannot fail to please.

He is also prepared to furnish superior building Lime at 25c. per bushel, in hhds., or at $1 per bbl. E. J. COOPER, July. City Block, Baltimore.

WHITMAN'S AGRICULTURAL WAREHOUSE, *No. 2 EUTAW STREET, opposite the Eutaw House.* ALSO for the accommodation of the Ry trade he has opened another House on LIGHT STREET, 2nd. door from Pratt; where will be found his new improvement in the way of Horsepowers and Thrashing Machines, together with a general assortment of all kinds of Agricultural Implements, such as Fanning Mills, which he warrants superior to any other, or they may be returned and the money will be refunded; also Plows on the same terms, a variety of Straw Cutters, Corn Shellers, Corn and Cob Crushers, &c. &c. &c.

Plough Castings always on hand, and all kinds of Repairing done at short notice and on reasonable terms.

Jy EZRA WHITMAN.

☞**AGRICULTURAL AGENCY**——The undersigned, publisher of the "AMERICAN FARMER," tenders his services to his patrons and the Agricultural community generally, for the purchase and sale of *Agricultural Implements* and *Machinery, Farm and Garden Seeds, Cattle, Hogs, Sheep, &c.*—He intends giving particular attention to this business, and pledges himself to use every exertion to render satisfaction—As he is the Agent for most of the principal Manufacturers and Breeders of this vicinity, purchasers will be supplied at their prices, without any charge for commission. ☞All orders, to meet attention, must be accompanied with the cash, or city acceptances, and addressed (post paid) to SAML. SANDS,
Publisher "*American Farmer*," cor. Charles & Balt. sts. Balt'e.

THE WHEAT CROP——The wheat crop promises to be unusually large this year, and the prospects for advanced prices being favorable, should induce the agricultural community to provide themselves with machinery to put their crops in the markets at the earliest period and in the best condition to command the highest market rates. The subscribers therefore, have made preparation to meet that object, by providing Machinery of best construction, which they offer for sale at the following prices, viz:

HORSE POWERS, for the draught of 2, 4 or 8 horses, at 75, 100 and $125 each. Powers at $100 and $125 are particularly recommended and warranted superior.

THRESHING MACHINES, adapted to be driven by the above powers, price 40 to $60, all made on the spike principle, (no cast iron used) and each spike secured with a screw nut and warranted not to break or cause detention by their use.

Driving BANDS for do. 8 to $10 each.

Rice's and Watkins' patent FANNING MILLS, warranted equal to the best patterns in the U. States, price 25, 30 and $45.

ALSO—CORN MILLS at $40; Corn and Cob CRUSHERS, 30 a $65; PLOWS and other Agricultural Machinery; TOOLS, GARDEN & FIELD SEEDS, a large and general assortment. For a description of sorts we refer to our general catalogue, to be had gratis. ROBERT SINCLAIR, Jr. & CO.
Agricultural Implement Manufacturers and Seedsmen,
July. 62 Light street, Baltimore.

PULVERIZATION. DECOMPOSITION.

A. G. MOTT, Ensor and Forest streets, sole agent for the sale of the "BOSTON CENTRE DRAUGHT PLOW," Prouty & Mears' self-sharpening patent, with new patent gearing. By this admirable arrangement, the labors of man and team are lessened one half, while the power and steadiness of draught obtained are so great that any depth of furrow is broken up, pulverized, and carried completely over with perfect ease and facility, and the precision of the spade. Prices, 7.50 to $13, with extra point and share. No extra charge for new gearing. Castings always on hand. "Spade labor, the perfection of good husbandry." July—tf

JAMES MURRAY'S *CORN & COB CRUSHERS*——These already celebrated machines have obtained the premium by a fair trial against other Crushers exhibited at the fair held at Govanstown, Balt. co. Md. in Oct. 1843, and the increased demand enables the patentee to give further inducements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices $25, 30, 35, 40, 45.

ALSO—Small MILLS, which received a certificate of merit, for $15—I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics. Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. Also, a second hand Steam Engine, 16 horse power, and the works for 2 Saw Mills.

Any kind of Machine, Model or Mill-work built to order, and all mills planned and erected by me, warranted to operate well.

☞Orders can be left with J. F. Cullan, Washington, D. C.; S. Sands, Farmer Office; or the subscriber.

Patent Rights for the Corn and Cob Crusher for sale.
Jy. JAS. MURRAY, Millwright, York near Light st. Balt.

NORTH DEVON CATTLE——The subscriber offers for sale a few BULLS, HEIFERS and CALVES, of pure NORTH DEVON blood, from 6 to 18 months old. They have been bred with great care from the best stock in the country, are handsome animals, of good size, and in fine condition.

Prices from $25 to $50. Address or apply to
JOHN P. E. STANLEY,
Jy.—tf 46 S. Calvert st. Baltimore, Md.

POUDRETTE—The subscriber, as Agent for the N. York Poudrette Company, will receive orders for any quantity, deliverable in this city at the factory price, freight and expenses added. July. S. SANDS, office of the "Farmer."

PRICE $100—REAPING MACHINES SIMPLIFIED, and their durability very greatly increased, will cut as fast as any I made prior to 1841; two horses are geared abreast, and are relieved from the once objectionable weight, and the draught is very much diminished. The value of this late improvement has been tested by Wm. Butler and Jacob Staley, of Shepherdstown, Va. who if applied to will give it the highest character.

The large Reapers are made as usual at $170—medium size will be made to order.

My CORN & COB CRUSHER, so well known in the South, stand unrivalled—price $25 to $35. OBED HUSSEY,
July. Baltimore.

AGRICULTURAL IMPLEMENTS—LABOR SAVING MACHINERY.——*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $300, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planters; Portable Tobacco Press; Portable Grist Mills complete, $125; Corn & Cob Crushers, superior and improved, $45; Morticing Machines, all sizes; Post Augurs, $5; Tenoning Machines; Cylindrical Corn Shellers from $30 to $40 each: they are of great power, shelling, by horse power, 3 to 4000 bushels per day; Vertical Sawing Machines; Stereotype Machines; Forcing Pumps; Veneering Saw; Cider Presses; together with every other article of *Castings or Machinery*. The public are invited to call and examine for themselves. July. tf

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